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Module 6

Health care financing

Addis Ababa University
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msh Management Sciences for Health

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Contents

Module 6 Health care financing

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Introduction

National health targets in many sub-Saharan African countries, including Ethiopia, are driven by the Millennium Development Goals (MDG) set to be achieved by 2015. The achievement of these targets, however, is impeded by rapid population growth, the rising burden of chronic diseases, rising health care costs, unaffordable health care for the poor and inequity. To overcome these challenges often means setting up an efficient and equitable **health care financing** system, which is often difficult, if not impossible.

In order to establish an efficient and equitable national health care financing system, countries have carried out major health reforms. One of these strategies is universal health insurance, which is sought due to the uncertain nature of health care provision. Ethiopia has enacted legislation to establish national social health insurance, which is slowly being rolled out, although take up is still very low. However, the problems of increased health care needs, the inability to mobilise more resources for health in the face of high out-of-pocket expenditure and the inability to fully recover costs of care incurred by beneficiaries pose a threat to universal health care in Ethiopia. Moreover, the Ethiopian health care system is under scrutiny in order to identify and obtain resources, increase efficiency in the use of available resources, promote sustainability of affordable health supply, and improve quality and coverage of health services.

This module provides an analytical framework that will allow you to evaluate the challenges facing the Ethiopian health care system, and their possible solutions. It begins by describing and analysing the health care financing functions. It moves on to explore the role of alternative health care funders, in particular the government and donors. Given the issues around sustainability and the increasing importance health insurance markets and social insurance mechanisms have in the policy arena, the module will devote Unit 4 to the discussion of health insurance. The module culminates with an application of theoretical and empirical knowledge to the analysis and recommendations for change in health care resource allocation in a particular region in Ethiopia.

Learning outcomes

After studying this module, you will be able to:

Knowledge and understanding

- discuss the functions of health care financing
- discuss the concepts, types and principles of health insurance
- examine the basic concepts and components of health sector reform
- analyse the role of government in financing health care in Ethiopia

Practical and professional skills

- evaluate the health insurance system in Ethiopia
- evaluate health sector financing reform in Ethiopia in improving quality and equity
- evaluate alternative health system financing reforms in a region/city in Ethiopia.

Unit 1: Typology of health systems and financing health care

1 Introduction

The countries of sub-Saharan Africa, including Ethiopia, strive to achieve the Millennium Development Goals (MDG) targeted for 2015, and are in a process of setting the post-MDG agenda. National health targets in these countries are driven by the MDG. However, health systems are facing challenges of rapid population growth (AfDB, 2011), the increasing burden of chronic diseases, which are placing an additional burden on the already stretched health systems, and inequity (Yesuf, 2013). The establishment of universal health care coverage would bring the MDGs a lot closer, but require robust health financing. This prompts the question: how can a meaningful and functioning health financing system be established?

This unit will shed light on the challenges and the way forward on health care financing in Ethiopia by: presenting the different modes of health care financing and by providing insights in to its functioning; the sources of revenue; the different mechanisms of revenue collection and distribution; the role of government, private sector and aid agencies in financing health care; and the cost of health care. In addition, the unit will address the issues of balancing revenue and cost of health care. The unit will further analyse the alternative modes of health care financing and how they could be applied to the health care system of Ethiopia.

Learning outcomes

After studying this unit, you will be able to:

Knowledge and understanding

- describe the functions of health care financing
- discuss the different sources of revenue in health care financing
- compare and contrast health care systems from various countries
- assess how alternative models of health care financing perform in Ethiopia

Practical and professional skills

- analyse the role of government in financing health care in Ethiopia
- evaluate the alternative revenue collection mechanisms in Ethiopia
- evaluate the role of donors in financing the Ethiopian health care system.

2 Health care financing functions

The cost of health care has been rising in developed countries. America, with millions of uninsured citizens, spends 17% of its GDP on health. Other developed countries such as the Netherlands spend 12% of GDP on health (OECD, 2011, p.9). However, developing countries spend considerably less of their GDP on health. For example, Ethiopia spent approximately 3.8% of its GDP on health in 2012 (WHO, 2013). Given the redistributive nature of health as a good, and the inequalities present in developing countries, it is natural that the MDG targeted health as a vehicle to improve life conditions in developing nations.

The health care expenditure of sub-Saharan African countries is suboptimal for the achievement of universal health care. In 2001, in Abuja, African Union countries agreed to increase their health care expenditure by spending 15% of their annual budget on health so as to achieve the health MDG (WHO, 2011). However, only a few countries have managed to increase their expenditure to this level to date. Among them Rwanda is on track to achieve the MDG and Botswana is off track. The increased expenditure has nevertheless produced mixed results.

In light of the aforementioned developments there is a need to discuss better ways of financing health care so as to achieve universal health coverage, **equity** and efficiency. In other words 'value for money'.

Health financing is a process of revenue collection, risk pooling, and purchasing goods and services for the purpose of improving the health of a population. We will discuss these in turn.

2.1 Revenue collection

The means by which a health system collects money from individuals, households or external sources is called **revenue collection**. In Ethiopia, revenues are collected by health care providers – including hospitals and health centres, in the form of user fees for services – who are encouraged to use their revenue in its entirety. Moreover, private for-profit and non-profit organisations collect revenues. The former collect user fees and insurance money in the form of premiums. City administrations and district authorities collect revenues from corporations that are usually passed to the Federal Ministry of Finance and Economic Development of Ethiopia, which has sole responsibility for pooling resources and managing the proportion of the revenue allocated to health and sharing it across districts.

Revenue is collected from individuals and households through the tax system, mainly through income tax. Employers can also provide health insurance for their employees. For example, an individual working in a private bank such as Dashen Bank has a private health insurance contracted with a private for-profit provider. When that individual becomes sick, he or she goes to the private provider and gets free medical care service at the point of care. Then the provider collects the cost from the insurer.

Revenue collection by hospitals is rife with challenges. First, financial management information systems are not well developed. Second, the exemption and waiver systems for patients with low socio-economic status are not well developed. For example, a person may bring a letter from his or her local government council stating that he or she is a member of a low socio-economic status group. The letter usually states the name of three witnesses stating that the person is poor. However, the local government council does not have a system to estimate the income of the individual, which also makes eligibility vary across regions, increasing inequity.

Eligibility criteria exclude income-based testing on expenditure and assets. This may lead to misrepresentation of the socio-economic group of patients, which again varies across regions.

To overcome some of these challenges, efforts are being made to systematise the waiver fee system away from exemptions, which tend to benefit all citizens across the board, to, for example, the identification of the very poor and provision of ID cards. However, this process is also at different stages of development and implementation across regions, and systems, are still plagued with misclassification of who the very poor are.

Sources of revenue will be discussed more in Section 3.

2.2 Risk pooling

Risk pooling is the process of creating a common pool of money so that the financial risks entailed by certain high-risk individuals are mitigated by money from lower-risk individuals. Risk pooling is required in health care financing due to the phenomenon of **adverse selection**. Adverse selection is a form of market failure (which we will discuss later in this module) where the price the seller is willing to accept to part with the good is different (higher) to the price the buyer is willing to pay.

Activity 1

Think about this concept for a moment. What makes health care a market in which there is adverse selection?

Comment

If I am healthy and live a healthy lifestyle, I do not expect to incur as many health care expenses as someone whose lifestyle and eating habits are unhealthy, or who is more prone to illnesses. As a healthy person, the premium I would feel is fair would therefore be lower than the premium a less-healthy person would be willing to pay. In general, the elderly's health care cost is higher than that of younger people. Similarly people at high risk of developing lung cancer, such as smokers, cost the health care system more than non-smokers. Furthermore, wealthier households can contribute more to the health system than poorer households. Therefore, risk pooling in effect cross-subsidises old people from young people's premiums, from those of low risk to high risk and from rich to poor. However, in countries with low solidarity, such as the USA, risk pooling is more difficult to achieve than it is in Israel, where there is a high solidarity.

Furthermore, given the uncertain nature of health hazards, premiums based on what is expected would neglect the less likely, but still possible, events that deteriorate our health and require care. Nonetheless, insurance companies need to guarantee that these less likely events can be funded from the pool of resources they collect. The result: insurance companies will charge more money than individuals are willing to pay based on their expected lifetime expenses. So while risk pooling is a mechanism that ensures more equitable outcomes, there can be challenges in collecting the right level of premium from a large enough collectable population base.

Activity 2

See Figure 1, which depicts the age distribution of sign-ups on the federal and state level health insurance markets in the USA. It also shows changes in age distribution of enrolees over a year. Observe the graph and discuss how risk pooling can take place in the US health insurance market.

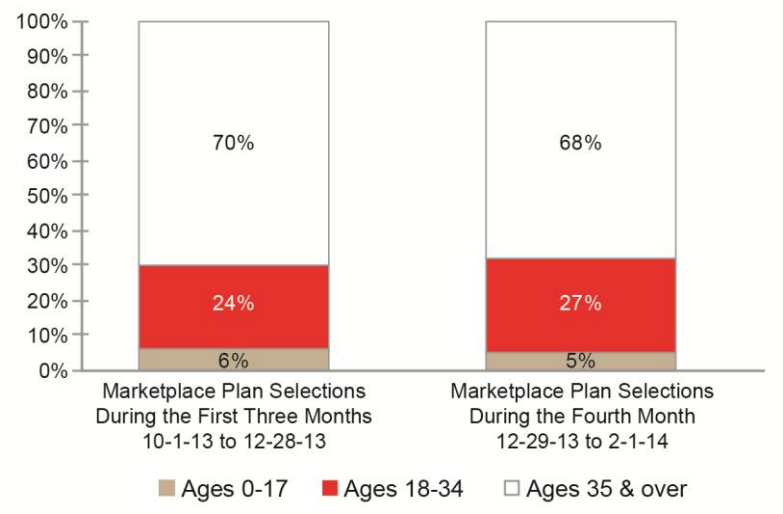

Figure 1 Trends in age distribution of individuals who signed up for health insurance in the Obamacare market place, January 2013 – January 2014: the proportion of young adults (ages 18–34) selecting a marketplace plan increased by 3 percentage points during the fourth month of the initial open enrolment period (from 24% to 27%).

Source: APSE (2014).

Comment

The proportion of young adults has increased by 3% over a period of one year. A quarter of the sign-ups are from young people. However, given that the elderly may take up 3–5 times more resources than young people there is a marginal risk pooling.

This is a voluntary health insurance scheme. The money collected from the marketplace therefore may not fully account for the financial risks posed by the elderly. Ultimately, the government might be obliged to subsidise the health care costs from other sources, or to consider types of health insurance that are more appealing to the population. In Ethiopia, as in several other countries, in addition to this type of insurance, there are programmes developing community-based health insurance schemes. We will return to these later.

2.3 Resource allocation in health care

Resource allocation is a process of distributing the revenues collected for the purpose of health care to competing interests. There are different criteria for allocating resource to health: incremental and needs-based criteria.

Incremental resource allocation or budgeting considers the overall increase or decrease in the health care budget at the national level, which is then reflected at state (region) and local (woreda) budgets (Pearson, 2002).

The other option for resource allocation is needs based where subjective or objective indicators of health needs are used as a basis for resource allocation. It considers population size, age, sex and level of poverty, alongside the costs of health care and other sources of health care funding, as factors with which to determine need. Generally areas with a larger population are assumed to have more health care needs than areas with a smaller population. The very young and the very old need more health care than young adults. Women need more health care than men. As ill health is strongly connected to poverty, areas with a larger proportion of poor require more resources. Resource allocation should also consider costs of providing health care at each woreda.

Other sources of funding for health care are also considered in the equation of resource allocation. In Uganda, districts with a large concentration of NGOs receive lower budgets. The burden of disease can also be considered, however, in Ethiopia it is extremely difficult to get burden of disease data at the woreda level.

Resource allocation mechanisms affect the way health care systems are organised. This is what we turn to next.

2.3.1 Social security – Germany, Israel

The social security model established in Germany is a national health insurance model that functions through sickness funds. The funds pay physicians, hospitals and other providers of health care (Tulchinsky and Varavikova, 2009). Sickness funds raise their money from workers and employers. Private providers are paid based on a fee-for-service model for medical care. Owing to its social security model, on top of medical care, it also provides pensions. Germany and Israel are the countries that have a sickness fund, as well as France, Belgium, the Netherlands, Japan, Switzerland and some Latin American countries.

2.3.2 Tax-based national health insurance – UK, Italy, Spain, Greece, Portugal

The UK government has a national health service (NHS), which is part of a social security system funded by tax revenues and free at the point of care. Like the social security system discussed above, it covers pensions and unemployment. Unlike the social security system, the source of revenue is tax and the payment method is capitation. In addition to the UK, tax-based NHS is a mechanism of purchasing health care in Italy, Spain, Greece and Portugal. Not all countries with a national health insurance (NHI) system finance it through taxes, and the enforcement and management of the system can also differ considerably. For instance, countries as vast as Canada and Australia, will enforce the NHI system by law at the national level, but devolve great responsibility to the federal regional governments. In the Canadian example, provinces are solely responsible for health care with cost-sharing by the federal government for preventive care – for example, maternal and child health. Moreover, the federal government is responsible for resource allocation to indigenous populations as well as for armed forces and veterans. Doctors are largely paid in a fee-for-service basis. Hospital care is mainly provided by non-profit, non-governmental organisations.

The above social health insurance payment methods have the advantage of ensuring equity, federal standards and universal health care. Nevertheless, some have argued that they may lead to long waiting times and poor quality care.

2.3.3 Mixed voluntary/governmental – the USA, South America, Africa, developing countries

Mixed systems have an allocation method whereby the government pays for the poor and the elderly, while other segments of the population buy insurance from private for-profit organisations. In the USA the government pays for the poor – people below the 20th percentile of the federal poverty level – and the elderly (those 65 years old). Despite the high health care costs this has resulted in, around 30 million people are still not insured or provided for. Following the recent Affordable Care Act enacted under President Obama, however, buying health insurance became mandatory and many states are operating their own health insurance market places; some, however, refuse to operate one.

The Ethiopian health care financing system mixes both private voluntary contributions and a national social security tax-based component. As is common to most developing countries. However, a large share of resources still comes from foreign aid and the system is heavily dependent on out-of-pocket fees for service payments.

3 Sources of revenue

There are myriad sources of revenue for health care encompassing internal and external sources.

3.1 Internal and external sources of revenue in health care

Internal sources include firms, entities, employers, individuals, households, domestic non-governmental organisations and charities. External sources include foreign non-governmental organisations and charities, foreign governments and companies (see Figure 2).

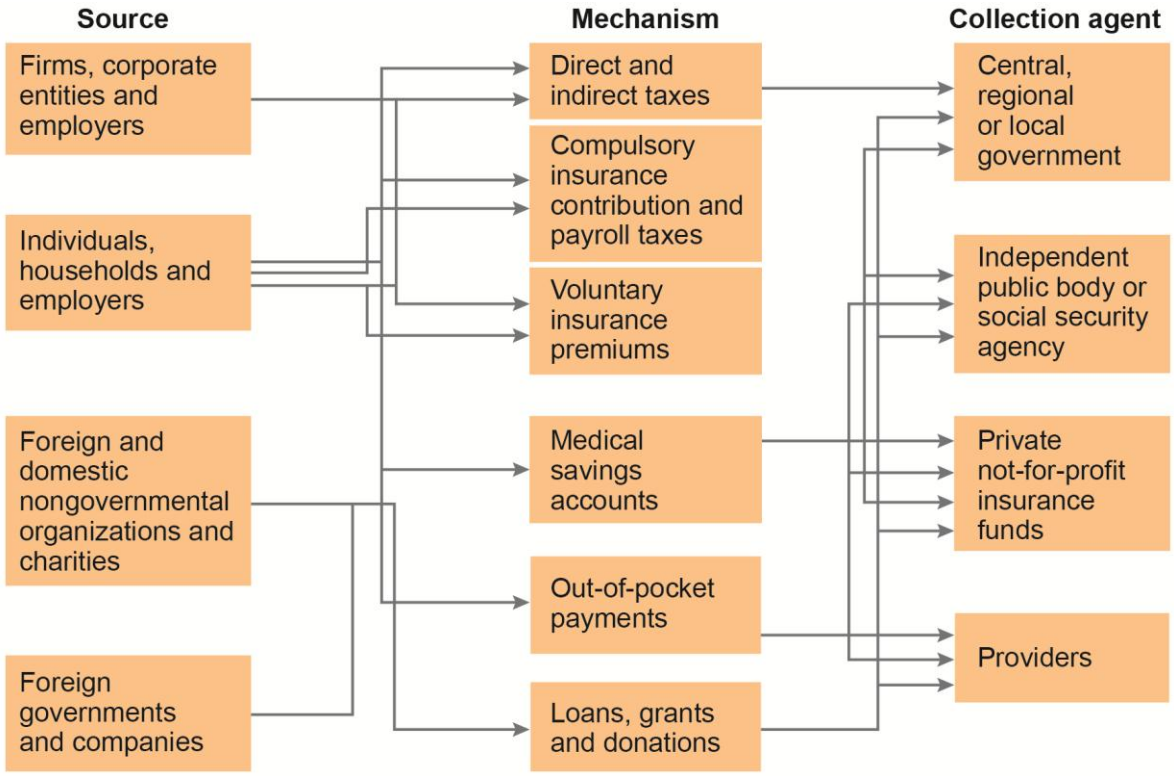

Figure 2 Sources of revenue and collection mechanisms for health care financing.

Source: Mossialos and Thompson (2002).

In Ethiopia, the main sources of revenue are development partners (40% of total revenue), followed by private out-of-pocket (37%), government (21%) and private employers (2%) (Federal Democratic Republic of Ethiopia, Ministry of Health, 2010).

Activity 3

Go to a public or a private provider of your choice and review the registration at entry of at least 20 patients. Report the source of payment for their health care. After you have done this, you may want to compare the proportions you have obtained with the proportions mentioned above.

Comment

With potentially only 20 patients, your proportions can be very different from the ones above. But you may also want to think about possible reasons why, in your region or in the institution you have visited to collect the data, these proportions may even vary in a systematic way.

3.2 Collection mechanisms

There are numerous revenue collection mechanisms, including taxation, voluntary/compulsory insurance, out-of-pocket payments, medical savings accounts and grants/loans (Figure 2). More recently, several countries have initiated community-based health insurance schemes, which pool individual payments at the community level and redistribute them according to regional profiles.

Now let us discuss the different mechanisms of revenue collection in light of the Ethiopian context.

Taxes can be direct – paid by individuals to an authority based on income or assets, usually to the government – or indirect taxes – paid by consumers each time they purchase a good as end users. Indirect taxes increase the price of goods (Investopedia, 2014a, 2014b), and include the value added tax which, apart from a few exemptions, cover most products purchased. Sin taxes (also called excise duties) levied on tobacco or alcohol are also indirect taxes. To increase revenue for health care, taxes can also be levied on the economic activity of firms and employers (corporate taxes).

The woreda, regional or federal government can collect the tax. In Ethiopia the collection of both direct and indirect taxes is on average lower than that of other East African countries (IMF, 2013) (Table 1). The ratio of tax to GDP per capita in Ethiopia is the lowest in Africa standing at 11% (Wikileaks, 2013). The revenue to GDP ratio is 14% (IMF, 2013).

Table 1 Tax-to-GDP ratio of alternative sources of tax (average over the period 1999/2000–2011/2013).

Country	**Income tax (%)**	**Goods and services tax (%)**	**International trade tax (%)**
Ethiopia	3.7	2.4	4.8
Kenya	7.5	8.5	1.9
Tanzania	3.5	6.2	1.1
Uganda	3.3	6.9	1.1
Regional average	4.8	7.2	1.4

Source: IMF (2013).

Given that in Ethiopia revenue collection from tax is one of the lowest, additional resources for health care could be raised by improving the tax collection mechanism.

Another source of revenue for health care in Ethiopia is insurance, which is either compulsory or voluntary. Insurance as a source of revenue in Ethiopia is in its infancy. Employees of a few state companies, such as Ethiotelecom, and Commercial Bank of Ethiopia can opt in to voluntary health insurance schemes. Voluntary health insurance was being used by less than 1% of the population in 2001 (Hailemariam, 2001). In contrast, social health insurance as a mandatory form of health insurance has been legislated for, but at the time of writing, it has not been implemented. Since April 2012, a community-based health insurance programme for the rural population is being piloted in 13 woredas of 4 regions (Oromiya, Amhara, Tigray, and Southern Nations, Nationalities, and Peoples'

Region). More than 144,000 eligible households have enrolled and more than 650,000 people have accessed the health services – mostly at local health centres, but some beneficiaries have been referred to hospitals (USAID, 2013).

Grants and donations are the main collection mechanisms in Ethiopia. Most of these come from abroad in the form of foreign aid. Out-of-pocket payments are second only to grants as the main mechanism of revenue collection in Ethiopia. The government encourages hospitals and health centres to revise and collect user fees and all of them are doing so. This has led to catastrophic expenditure and fuelled inequity in health care use. For example, user fees charged by 65% of health centres for antenatal care (ANC), which is supposed to be free (Pearson, 2011), may have contributed to the disparity in the use of ANC in Ethiopia. The richest households in Ethiopia use four times more antenatal care than the poorest households (Yesuf, 2013).

Medical savings accounts are the least significant form of collecting revenue. It is a mechanism by which individuals save money during their productive years and use that money to buy health care in their old age. At a time when people are living longer, and thus are likely to require more health care, insurance companies who provide this service often ask for too high deductibles, discouraging this saving behaviour. It has been used by China, the USA, Singapore and South Africa (WHO, 2010). Nonetheless, the effect of medical savings accounts on health care costs is mixed. By having individuals saving for their own future health care costs, this scheme could prove to be effective in reducing adverse selection. Additionally, it could also reduce the incentive individuals may have to change their behaviour –resulting in their becoming more risk and illness-prone – in a social insurance scheme where the consequences of their behaviour is not borne solely by them. This incentive for individuals to change behaviour in a market with asymmetric information is called **moral hazard**.

Case study

Read the following case from Rwanda and answer the question that follows.

> In order to ensure that all citizens have adequate access to health care, Rwanda provides universal health insurance and focuses particular attention on providing for vulnerable populations. The community-based health insurance program, *Mutuelles de santé,* has more than halved average annual out-of-pocket health spending and significantly cut the rate of households experiencing health care bills that force them into poverty. *Mutuelles* receives half of its funding from international donors and half from annual premiums of less than $2 per person. For hospital care, patients pay a co-payment of about $0.35 plus ten percent of the total hospital bill […] After finding that the utilisation of health care lagged in the poorest fifth of the population, in 2010 the government began to subsidise premiums and co-payments for those living in extreme poverty through the support of The Global Fund to Fight AIDS, Tuberculosis, and Malaria.
> (Emery, 2013, n.p.)

Activity 4

Having read the case study, consider how community health insurance can be scaled up in Ethiopia to emulate Rwanda's success story, thereby reducing the reliance in Ethiopia on out-of-pocket payments and grants/loans for health care.

Comment

The way Rwanda subsidises the poor to access health services is a useful lesson for Ethiopia. Currently, the Ethiopian Federal Ministry of Health subsidises 25% of the contributions members of the community based health insurance (CBHI) scheme make. The Ministry also has targeted subsidies for the poor, which are run and allocated jointly with regional and woreda authorities. In addition, Ethiopia can raise more money for the CBHI schemes from donors, which is then leveraged using more targeted subsidies for the poor. The challenge is estimating co-payments for the rural population since most of them are employed in the informal sector, and 84% of the population is rural. Therefore, the question still to be answered is whether the types of contributions made by donors and the Ministry within the CBHI will be sufficient when the programme is scaled up.

3.3 Role of donors and aid in health financing

The definition of official development assistance (ODA) has been continuously redefined ever since the first definition in 1969. The OECD defines it today as:

> 'those flows to countries and territories … provided by official agencies, including state and local governments, or by their executive agencies; and … each transaction of which … is administered with the promotion of the economic development and welfare of developing countries as its main objective; and … is concessional in character and conveys a grant element of at least 25 per cent.' (2014)

The ODA for health has increased between 2000 and 2010 reaching US$26.66 billion (Atun *et a*l, 2012). The increase has been largely driven by the Global Fund to fight malaria, tuberculosis and HIV/AIDS.

Even though the volume of assistance health care systems in developing countries require has soared, the ODA for health has not increased in real terms. The 2008 financial crisis, which has led many developed countries in to a period of austerity, may have contributed to this trend.

Foreign aid has contributed tremendously to the control of HIV/AIDS in most sub-Saharan African countries. Rwanda successfully used foreign aid to overhaul its health care system and introduce CBHI. It has also driven the health care reform in Ethiopia by pressuring the government to improve user fees collection mechanisms.

Nonetheless, in spite of its promises, foreign aid brings its own challenges, such as:

- high overhead costs of salary and transportations, partly due to the requirements of donors that health projects supported by them spend most of the money on goods and services from donor country
- bureaucracy for both donors and recipients

- aid planning outside government planning systems
- inefficiencies arising from several donors applying different monitoring mechanisms for non-fungible projects (**aid fungibility** occurs when the purpose for which aid was provided cannot be enforced or monitored).

In order to overcome such challenges, reforms have been introduced. The most important reform was pooling funds whereby the donors and host/recipient government put their financial resources into a common fund to be used for a plan agreed upon by both parties. Improving aid effectiveness and increased domestic financial resource sourcing by cost recovery were also used as strategies to overcome the challenges.

Case studies

Financing and sector-wide approach: the case of Malawi. ('SWAp' in the case study stands for 'sector-wide approach'.)

> The SWAp has helped support significant progress towards achieving the Abuja Declaration. It is credited with fulfilling the Abuja Declaration commitment to allocate 15 percent of the total government budget to the health sector. This has also earned credibility for the health sector in its efforts to improve the stewardship and governance of the sector.
>
> Sustainability: Of the nine PoWs [Program of Works] reviewed, GoM [Government of Malawi] contribution of the total at 29% was the lowest – in seven of the cases the domestic share exceeded 50%. (In practice the share has been much higher). (Pearson, 2010)

Mozambique: Sector-wide approach started in 2000

> At the time the SWAp was being established, health sector financing was extremely fragmented, with an abundance of vertical programmes and projects, and little (if any) on-planning or on-budget external funds. The Strategic Plan and the SWAp were seen as a means to rationalise and improve the coordination of external assistance. In fact, the SWAp in Mozambique was not directly linked to a predefined sector expenditure programme and medium term expenditure framework. Rather, the main objectives were to increase government health expenditure over time, and to increase the proportion of external funding channelled through common funding and budget support arrangements. Happily, this has been greatly achieved. In a few years the health sector in Mozambique has substantially changed its health financing structure along the lines that both development partners and MOH set in the Plan. As Table 2 shows, public expenditure for health has more than doubled between 2001 and 2004, thanks to the spectacular increase in the volume of common funds, helped by moderately increasing government expenditure. However, as the table also shows, close to one third of total health expenditure is still provided through earmarked, vertical funding arrangements. Rather than decreasing, as the Government would wish and has repeatedly asked for, vertical funding has remained constant, and in fact it has begun to increase again in the last couple of years [even if not in

proportional terms compared to the beginning of the period], largely as a result of increased availability of vertical funding for HIV/AIDS through programmes such as the US Government's PEPFAR.

Table 2 Changes in health care financing sources before and after sector wide approach in Mozambique (US$ millions).

Health care financing source	**2001**	**2002**	**2003**	**2004**	**2005**
Total expenditure	165	178	209	252	356
Government budget	70	82	96	105	112
Common funds	17	20	37	63	113
Vertical funding	75	75	75	85	130

Source: Martinez (2006).

Ethiopia received US$3.6 billion in 2011 making it the fifth largest recipient of ODA (Global Humanitarian Assistance, 2014). Aid flows to Ethiopia from bilateral donors, such as USAID, DFID and SIDA. USAID is by far the largest donor to Ethiopia. Multilateral donors also have a large presence in Ethiopia; among active donors in health are the World Bank, Global Fund and UNICEF. Donors usually demand improved governance and market liberalisation as a general condition for aid. Specific conditions, such as performance-based aid, are used by the Global Fund.

4 Costs of health care

4.1 Methods of estimating health costs and the case of Ethiopia

The World Bank notes that **total health expenditure** as a percentage of GDP:

> … is the sum of public and private health expenditure. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation. (World Bank, 2014a)

In contrast, total health expenditure per capita is defined by the World Bank as, 'the sum of public and private health expenditures as a ratio of total population' (World Bank, 2014b, n.p.).

In Ethiopia both total health care expenditure and health expenditure per capita are lower than in many East African countries, as shown in Figure 3. Moreover, these variables remained unchanged between 2000 and 2011, health expenditure per capita stagnated on average at US$16 (WHO, 2013) and remains one of the lowest in sub-Saharan Africa. Ethiopia also did not increase its health care expenditure as a percentage of government annual budgets. The share of health care expenditure from the annual government budget did not change between 2000 and 2009 (Abiola *et al*, 2011).

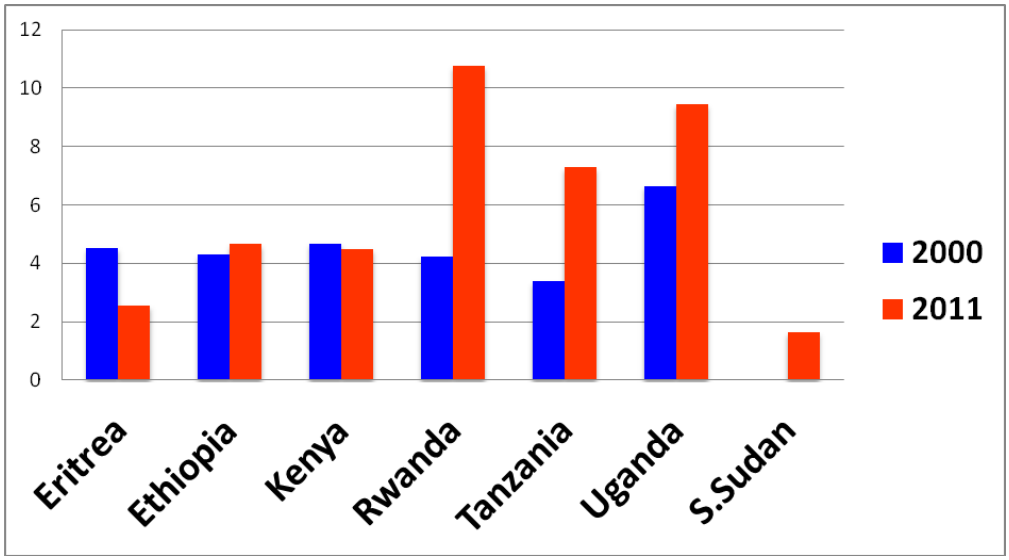

Figure 3 Total health expenditure as a percentage of GDP for selected countries in East Africa.

However, with the social health insurance, which has been witnessing an increase in take up rate, and with the community-based programmes soon to be implemented at a national scale, health expenditure per capita is expected to rise.

Activity 5

If you do not have access to a laptop and or internet, you may want to carry out this activity when you visit the university. Go online and search the WHO National Health Accounts Database (you may want to use a search engine, such as Google, to find this website). Select health expenditure per capita indicator and enter as the country name, Ethiopia. Then request the database. For which time period is the data available? Repeat the same procedure for Uganda, Kenya and Tanzania. How do these countries compare with Ethiopia? Then compare the figures you have obtained for Ethiopia with the figures provided in National Health Accounts.

Comment

Data is available for the period 1999–2013. According to the data provided at the time of writing, health expenditure per capita is rising in Uganda, Kenya and Tanzania. It remained unchanged in Ethiopia. National health accounts however show that the trend is increasing, even if it remains below the sub-Saharan average.

In 2009/2010, Ethiopia spent US$867.06 million on health and most of the cost was borne by development partners and out-of-pocket payments (FMOH, 2010). The majority was spent on preventive activities. Based on needs-based planning, in order to achieve MDG, an additional US$6.987 billion was estimated to be required between 2010 and 2015. In this period, hospital infrastructure is expected to consume a larger share of resources. Even though there is no difference in cost-effectiveness between hospital-based and population-based interventions for chronic diseases, expansion of hospitals seems to be a requirement

of most donors. By increasing incentives for providers to provide inpatient care, this may reduce the support Ethiopian families have to receive health care services, such as birth deliveries, at home.

4.2 Balance of revenue and cost

As a rule, the rate of increase in total health care expenditure should not exceed the rate of GDP growth of a country. While Ethiopia and several other developing nations may still have scope to increase the share of health expenditure in total as a proportion of GDP, a fundamental requirement which lies at the core of good health care financing systems is the efficient use of resources. Is the current Ethiopian health care system organised efficiently?

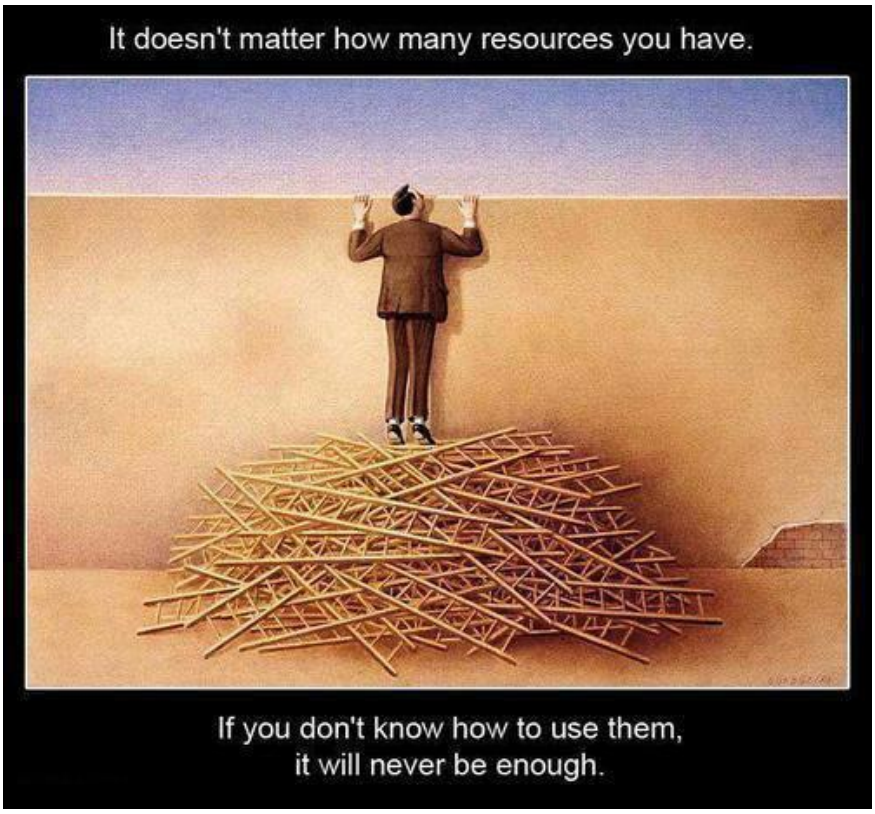

Figure 4 Cartoon satirising the effective use of resources.

Source: The Business Development Network (2012).

The Ethiopian health care system is organised vertically. At the bottom is a primary health care unit, which is supposed to provide health care to 25,000 people. Primary health care units have a referral link with primary hospitals, which in turn are linked to general and tertiary care hospitals (Figure 5). Non-governmental organisations operate parallel to the main stream of the health care system.

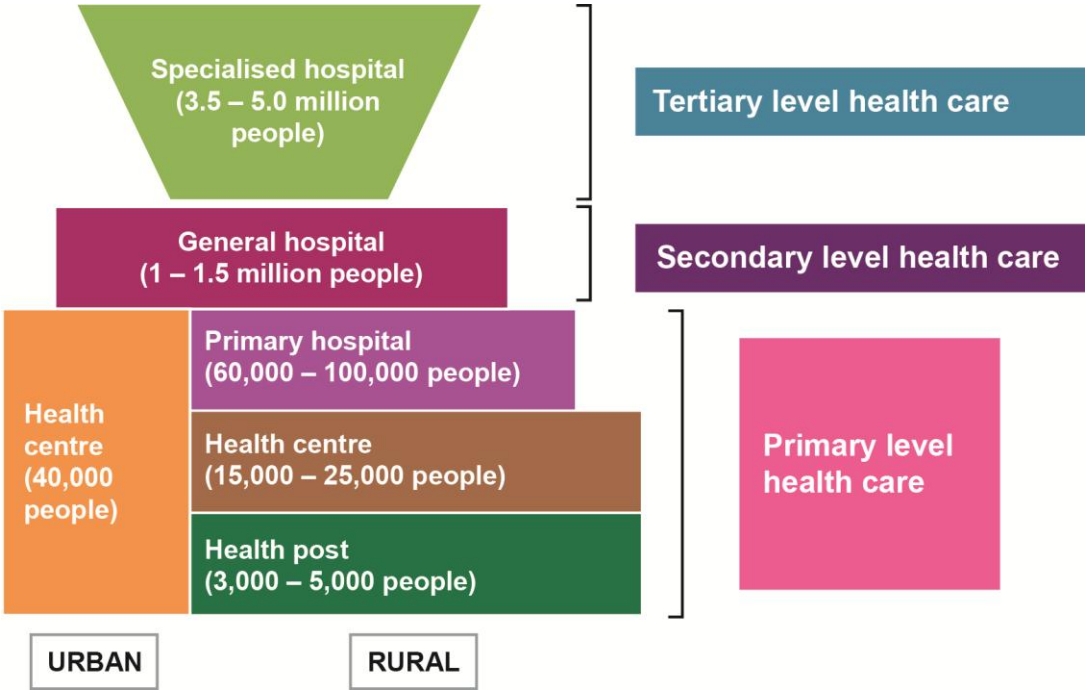

Figure 5 Ethiopian health care system

Decisions on the basket of services to be included at each tier are made by the woreda health department with representatives from the finance department and the woreda administration. Usually analysts, such as economists, managers and health service management professionals, are involved. Outpatient visits are usually used as a basis for rationing health care units' resources. However, cost effectiveness data is not taken into consideration during rationing and no expert health economist is involved in the planning. Later in your studies, you will learn how to make such informed decisions, by learning methodologies which allow for a full characterisation of benefits and costs of alternative courses of action, and a decision made on which course to take. This will be in the next semester.

Moreover, during the health care process, many patients bypass lower level facilities for higher level care because of a lack of trust or concerns about quality. This is partly explained by governance and monitoring structures still being underdeveloped. Adding the inefficiencies that occur when the opening time of health facilities excludes the nights and the weekend, the Ethiopian health care system has a few challenges and potential areas of improvement if it is to become more efficient in the way it uses its resources.

Notable action Ethiopia has taken, in line with other developing nations, is the implementation of social health insurance schemes. The schemes currently cover essential health service packages and exclude costly procedures, such as hip replacement or organ transplants. Beneficiaries, who are more likely to be employees of larger organisations and earning a steady income, pay a small co-payment, which is proportional to the incurred health expenses, for outpatient visits and lower income patients (see Section 1.5). However, analysts anticipate a few challenges when the take up of social health insurance increases.

Activity 6

Can you think of potential challenges that the health care system may face if social insurance contributions increase?

Comment

There are issues to do with adverse selection and moral hazard that apply here. Risk pooling in a form of age mix is going to increase, given that the age distribution of the beneficiaries is known. There is still the problem of moral hazard underlying the choice of taking up a voluntary social insurance scheme, which increases health care costs. There is also a risk of by-passing lower-level professionals for higher-level providers, which may again lead to higher health care costs. Referral papers need to be issued whenever patients bypass a lower level provider, and agencies levy fines on patients who engage in unofficial bypassing. Despite these efforts, bypassing is still common, and given the absence of a more effective mechanism to track patients who bypass lower level facilities, the levy is difficult to implement.

There are also concerns that the redistributive power of social insurance schemes, through the use of co-payments, may not be enough to reduce inequities. Formal sector employees are the eligible beneficiaries of the social health insurance, and people who work in the informal sector are only benefiting from the system through minor co-payments. This is the main reason why CBHI schemes are being tested in Ethiopia, and health economists should prioritise bringing about the effects these schemes have had on health outcomes to make sure health reforms can reduce inequities, and truly reach a larger share of the population.

5 Who should finance health care?

5.1 The public–private financing mix

Who pays for health care depends on who is responsible for the health care of the individuals in a population. According to the Alma-Ata Declaration, health is a human right and therefore, the government should be responsible for the health of its population (UNICEF, WHO, 1978). On the contrary, Sade (1971) suggests that health is a commodity sold by the physician to earn a living and that the individual should buy health care. In making the individual responsible for their own health costs, this also increases efficiency by reducing moral hazard and adverse selection problems. These frameworks on the responsibility for health have affected the organisation of health system financing and delivery in many countries around the world. After the financial crisis, which started in 2008, frameworks favouring individual responsibility have gained even more relevance as a means of keeping government debt at bay.

The Alma-Ata Declaration was accepted by many developing countries. For example, in 2010, Kenya included health in its constitution as a right. Notwithstanding this, the Kenyan government is not providing universal health care and instead opted for providing free health care to pregnant women, breast-feeding mothers and people with disabilities. In the USA, health has been viewed as a commodity that should be purchased by the individual. Recently, the Obamacare programme, which sought to expand Medicaid for the poor and is state subsidised according to income, has encountered stiff resistance from conservatives.

Thus, Obamacare is public financing with a private delivery, which clashed with the existing social norms in the USA. In the UK, general practice is delivered by GPs with public financing, and attempts to privatise some components of the health system as a result of the need for austerity measures following the 2008 crisis, were unpopular.

In conclusion, there is no one best solution for financing and delivery of health care, and it depends crucially on the social norms of each country and region.

Table 3 Public–private mix in financing and delivery of health care.

		Delivery	
		Public	**Private**
Finance	**Public**	Most of hospital care in Ethiopia, hospital care in UK	General practice of UK
	Private	HMO* of USA	HMO of USA

Source: adapted from Donaldson (1993).

5.2 The role of government and the size of the government debate

There is no doubt that governments need to be involved to some extent in health care provision because of market failures. Asymmetric information exists between the physician and the patient, whereby the physician has had a long and abstract training on disease conditions, and the patient may have limited understanding of their disease. This can lead to the provision of excessive services by the physician to the patient. This relationship has to be regulated to protect the patient as a consumer. Moreover, health care is a social good that needs to be provided to the largest segment of the population possible, notwithstanding its provision has positive externalities, whereby treating one individual prevents transmission of disease to other individuals. Overall productivity increases, and ultimately health expenditure is recouped because health promotes economic development.

Private insurers, in contrast, being driven by profit, tend to charge higher premium for people with chronic diseases and the elderly or exclude the later altogether, because their expected cost is higher. However, these groups are also groups which are poorer and less fit to work, and therefore unable to pay higher premiums. The result will leave part of the population uninsured, fuelling inequalities. To some extent, some will argue that it is the government role to make sure that health and goods which are social goods are available to the entire population, but this debate is and will always be ongoing.

If government intervention in health care is the rule rather than the exception, what are the forms of governments' involvement?

Traditionally governments were involved as the providers of public health and preventive services. They were drivers of infrastructure construction, education and licensure. However, governments have devolved some of their powers on education and licensure to professional organisations.

In recent decades, especially after the Second World War, and in periods of increased social inequalities, the government has emerged as a provider of social health insurance and as a regulator. Modern forms of government intervention can be a non-competitive, state-operated NHS, like that in the UK, or competitive social health insurance, as is the case of Germany and Israel.

Governments' involvement as a central funder with a decentralised delivery ensures universal mandatory health care with a certain package of benefits. Furthermore, solidarity might be strengthened. It also separates the ability to pay from the need for health care, which increases equity.

However, public opinion on government intervention differs from one country to another and within them also. In the USA, 53% of individuals have a favourable view of Obamacare and 33% have an unfavourable view (Kaiser Family Foundation *Health Tracking Poll* [conducted 8–13 July 2010]). In the east African countries of Kenya, Tanzania and Uganda, the majority of respondents ranked health as one of the top five priorities the public wanted to see addressed by their governments favourouring an increased role of government in health care provision (Abiola *et.al,* 2011).

Case study: USA

President Obama's health reform required individuals to buy health insurance or face penalties. The Obamacare is subsidising individuals up to 400% of the federal poverty level with gradual phase out devolving responsibility to states and individuals. Insurance companies are not allowed to exclude individuals based on pre-existing conditions, they are also not allowed to charge the elderly more than three times what they charge young people. It penalises employers who refuse to cover employees who seek subsidy. Most democrats support this idea because it will make America join a club of developed nations with universal health care coverage. Most republicans are against the idea because it increases government debt and is bad for the economy; it also increases the role of the government and infringes individual freedom, and may compromise the **quality** of the care due to its socialised nature, making it inefficient. Most republicans fiercely opposed public health insurance, which competes with private health insurance, for fear of the increased power the government would hold.

The Ethiopian's government involvement includes financing, provision of health care and regulation. With the establishment of a brand-new social health insurance agency and soon to be scaled-up community health insurance the role of the government will be expected to increase. Legislation could affect the role of the Ethiopian government in health care financing and will need to be revised. This module will dwell on some of these issues and provide you with tools to make your own informed views on these matters.

6 Summary

The financial resources mobilised for health care in developing countries, including Ethiopia, are inadequate to achieve the health MDG. In light of this, in this unit we have covered the functions of health care financing: revenue collection; sources of revenue; and resource allocation. Resource allocation should be needs based in order to gear towards equitable health care. Resource allocation determines the organisation of health care, though it is greatly influenced by the political position of a country and the government's involvement in health care provision.

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Unit 2: Health care financing reform in Ethiopia

1 Introduction

Health sector reform in Ethiopia is an ongoing process. Restructuring the financing of health care is part of the process of reform. Health care financing reform in Ethiopia began with a strategy document in 1998, with implementation following in 2004. Reform was necessary because up until then, all revenue collected by health facilities was transferred to the finance bureaus and Ministry of Finance. This meant that any fees collected from the health facilities could potentially have no direct benefit to the health delivery institutions themselves. This undermined improvements in the quality of care and incentives to introduce innovative management practices. Health facilities also suffered from shortage of essential drugs and supplies, and out-of-pocket spending on health was very high for most Ethiopians. All of these deficiencies demanded the introduction of new health care financing reforms.

This unit looks at the reform of health care financing in Ethiopia. Having been introduced to some of the main challenges faced by health sectors throughout the world and some of the common health systems that have been adopted by different countries to cope with such challenges in Unit 1, this unit focuses on Ethiopia. We discuss why reform was necessary, how it was implemented and its achievements. The impact of the health finance reforms on the important issue of equity is also explored. The unit will also develop an essential core competence of a health economist; the skill to identify challenges, opportunities and approaches to financing the health sector. The rest of the module will then develop theoretical and analytical tools, which can further this understanding, and enable you to evaluate alternative paths for a country's health sector.

Learning outcomes

After studying this unit, you will be able to:

Knowledge and understanding

- examine the basic concepts and components of health sector reform
- describe the health care financing reform in Ethiopia

Professional and practical skills

- identify the principles and practices of health care financing reform
- assess the implications of alternative Health sector financing reforms in Ethiopia for improving quality and equity.

2 Context and basic principles of the health sector reform in Ethiopia

Before the health sector reform in Ethiopia, any fees collected from health facilities would be transferred to central governmental departments, which could potentially result in no direct benefit being received by health institutions. This undermined the quality of care and frustrated innovative management practices. Health facilities also suffered from shortages of essential drugs and supplies. There was no formal fee waiver policy and no reimbursement of the cost of fee waivers. The result was that, lacking the incentives and the resources to provide for high-quality and cost-effective care, out-of-pocket spending for

health was high for most families. While health providers lacked a framework that ensured adequate health services, the government were in no position to finance health exclusively, and began to look for cost sharing in the provision of health services.

In June 1998 the council of ministries of the Federal Democratic Republic of Ethiopia approved the Ministry of Health proposed health care and financing reform strategy, which established a new policy of health care financing. The strategy sought to spread the cost of health care to multiple financing mechanisms, thereby making funding more sustainable. The reforms were intended to bring about increased levels of decentralised ownership and to assist local government in taking leadership in health care quality improvement for their communities.

The major goals of reform were to:

- identify and obtain resources
- increase efficiency in the use of available resources
- promote sustainability and
- improve quality and coverage of health services.

The following guiding principles also informed its implementation strategy.

- Services were to be offered on the basis of cost sharing between patients and providers of the services, developing and revising fee schedules.
- User fees were to be retained and used by the facilities (regional health bureaus and various health facilities) to improve the quality and quantity of health services. These can also be used to outsource non clinical services to the private sector in order to increase supply and reduce cost.
- Any fee waivers were to be granted to reduce financial barriers for the poor and exemptions shall be given to encourage consumption of particular kinds of preventive or public health services.
- The cost of fee waivers were to be covered by an appropriate third party, and eligibility criteria were to be revised.
- Accountability and governance structures would also be revised.

The reform implementation was supported through the USAID funded Essential Services for Health in Ethiopia (ESHE I, II) for many years and more recently by the health sector financing reform project. The reform packages sought to protect the ‘poorest of the poor’ from the financial barriers to health care services and to guarantee that people would pay for health services according to their ability to pay. However, by providing health facilities with greater autonomy and responsibility, the reform has created opportunities and incentives that can, in theory, clash with some of the reform’s intended goals. For instance, the reform has created opportunities for health facilities to develop a private wing to ensure high-quality services for those who could pay more. While some argue this initiative actually reduced absenteeism of health practitioners, which benefited all, there is a widespread concern that private wings have in fact widened inequality in terms of access to health care for the very poor. The implications of private wings have not yet been fully explored.

3 What is health sector reform?

There is much debate about what health sector reform is. How transformative does it need to be? Does it need to be a radical overhaul of the health system, or can it be achieved through smoother incremental changes? Berman and Bossert (2000) define health sector reform in the following way.

> Reform means positive change. But health sector reform implies more than just any improvement in health or health care. In 1995 DDM [Data for Decision-Making] advanced a definition of health sector reform as 'sustained, purposeful and fundamental change' – 'sustained' in the sense that it is not a 'one shot' temporary effort that will not have enduring impacts; 'purposeful' in the sense of emerging from a rational, planned and evidence-based process; and 'fundamental' in the sense of addressing significant, strategic dimensions of health systems.

It is useful to spend a little time exploring what Berman and Bossert say in their article. We learn that health sector reform can include a wide range of actions on health systems, and it is more than just improvement in health or health care. They argue that we should be more explicit about what was sought in the reform in order to evaluate its performance.

They add that health sector reform needs to be 'sustained, purposeful and fundamental'. Let us take each of these concepts in turn in order to have a meaningful and robust measure.

'Sustained' means not a 'one shot' temporary effort, but change that will have enduring impacts. For example, establishing a new or greatly expanded system of national health insurance in Ethiopia would need to involve substantial changes in financing, regulation and delivery. It should considerably affect the health care delivery system as well as the organisation in general depending on how the health system is structured.

'Purposeful' means reform that is rational, planned and evidence based. This means that elements and components of the reform need to have been developed in a direct and explicit manner, identifying clearly the problems of the health system through an evidence-based approach and linking the mechanisms of system change to solving those problems. A clearly articulated policy of health reform is required so that the major actors responsible for implementing the change can specify goals and objectives, acknowledge the relationship of their activities to achieving the goals of reform, and the purposeful linkage among different components of system change.

'Fundamental' means addressing the significant, strategic dimensions of health systems and the creation of actors who will defend their new interests in the political process (Berman, 1995). However, reforms that are passed by legislation and not implemented would not qualify; nor would failed reform efforts.

The authors identify three cross-cutting issues as particularly important and amenable to progress in health sector reform:

- development of sustainable financing strategies for priority services in the lower income countries
- strengthening government approaches to non-government health care providers at the primary level
- improving governance in health ministries, local health departments, and health care provider organisations

Activity 1

Read the following summary of Berman and Bossert's (2000) article, entitled 'A Decade of Health Sector Reform: What Have We Learned?' in a Harvard School of Public Health Issue Brief, and answer the following questions.

1. What are the three major types of reform identified by the authors?
2. Why is big reform unlikely in developing countries?

Issue Brief

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HARVARD SCHOOL OF PUBLIC HEALTH

INTERNATIONAL HEALTH SYSTEMS GROUP

DEPARTMENT OF POPULATION AND INTERNATIONAL HEALTH

A Decade of Health Sector Reform: What Have We Learned?

For most of the last decade (1990-00) the DDM Project has worked to create resources for managing health sector reform. We have defined "health sector reform" as strategic, purposeful change—strategic in the sense of addressing significant, fundamental dimensions of health systems; and purposeful in the sense of having a rational, planned basis.

Major Types of Reform

Our review of efforts at health sector reform in developing countries highlights three major types:

❶ "Imposed Reform" driven by changes external to the health system; i.e., the collapse of communist governments; major state reforms; and structural adjustment programs.

❷ "Big R" reform derived from strategic, purposeful reform programs that introduced change in two or more of the "control knobs"[1] affecting health system performance across several parts of the system.

❸ "Small r" reform—still strategic and purposeful, but more narrowly focused on only one "control knob" and only one part of the system.

[1] Hsiao, William. (2000) "Inside the Black Box of Health Systems." *Bulletin of the World Health Organization.*

Much of what has been criticized in health sector reform to date is the result of rushed efforts to respond to change imposed from without.

Many African nations, for example, introduced user charges in public health facilities in the late 1980s and early 1990s, in response to falling real currency values and budget cuts resulting from structural adjustment. These responses were often labeled "health sector reform" programs and severely criticized for their negative impact on equity and failure to generate revenue. But can this imposed change be equated to health sector reform as strategic, purposeful change? We think not.

The International Experience

We find that "Big R" reform is not that common in developing countries. Our list of "Big R" reform countries in the 1990s includes Colombia, the Czech Republic, Poland, China (parts), Zambia, South Africa, and the Philippines. On this list, only China and Zambia could be considered lower income countries.

This is not surprising. Major reform demands a great deal of information and evidence as well as substantial institutional and human capacity—conditions not available everywhere and at all times.

Continued on reverse side

Interestingly, "Big R" reform often emerges in conjunction with national crises or major, at times traumatic, political changes. This was the case with Colombia, often held up as a model of major reform in the 1990s. Colombia enacted comprehensive health sector reform legislation in response to a fiscal crisis in the publicly-financed social security system and the fiscal opportunity emerging from major new petroleum discoveries. Although this program has accomplished much, in recent years it has been hampered by institutional constraints and suffered from political instability.

Although "little r" reform has been promoted as being simpler and more focused, international experience suggests otherwise. DDM studies of hospital autonomy programs in five developing countries showed that even change on this scale was often not successful. Translating autonomy goals into effective legislation and changed administrative rules was not straightforward, nor was the actual movement from *de jure* autonomy to *de facto* autonomy at the hospital level.

Our main conclusion from this review is that there is not yet enough evidence on the impact of well-designed reform programs in developing countries to draw strong conclusions about whether reform works. We have learned some important lessons from the experiences of the last decade, but they are not sufficient to provide us with a comprehensive assessment.

But we do know that the old models were clearly not working. Ultimately, it will simply not be possible to evade the need for strengthened health care systems in the face of the continuing health and epidemiological transitions; health priorities that demand more complex interventions; and the dim prospects for new or increased resources for the health sector in the immediate future.

Some Useful Lessons Learned

❶ "Big R" reform is hard to do. It requires conditions—political opportunities, sound leadership, stability in government, capacities in human skills, information, and organization—that are difficult to achieve, especially in the lower income countries. Major health reform is not always viable.

❷ "Big R" reforms require major efforts in capacity-building. Much more emphasis should be placed on organizational development and training in the implementation of major reforms.

❸ "Little r" reforms, while seemingly less demanding, have also had mixed results. Sometimes the same conditions are lacking. And "little r" reform does not eliminate the need for sound systems analysis.

❹ Health sector reform, big or little, cannot be developed from a single global or even regional policy formula. Nevertheless, we need to strive to identify those lessons and approaches that can be generalized to guide our efforts.

❺ Reformers have not always focused enough on the actual outcomes of reform—improvements in health, equity, financial protection, and patient satisfaction. We need to develop better monitoring and evaluation.

For more information see Berman, P. and T. Bossert (2000). *A Decade of Health Sector Reform in Developing Countries: What Have We Learned?* DDM Report No. 81. Boston: Harvard School of Public Health. This and other DDM reports are available at www.hsph.harvard.edu/ihsg/ihsg

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June 2000

Comment

1. The authors identify:
   - imposed reform, where reform happens because of changes that are outside of the health system, such as a change of government, reduction in foreign aid or socio-demographic changes
   - big reform, where reform happens in two or more important areas of health system performance
   - small reform, where reform is more narrow, in one major area.
2. It is unlikely because it takes significant institutional and human capacity.

4 Main components of health sector financing reform in Ethiopia

The Ethiopian health infrastructure seriously deteriorated under the Derg Regime from 1974 to 1987, and the health service delivery system was dysfunctional. Physical access to health service providers was beyond the reach of the majority of the rural population and the poorest in society. Moreover, health service delivery was inefficient and inequitable, and the quality of health care was generally poor. The overall national budget was limited, resulting in the inadequate financing of health care services.

The low levels of health expenditure in Ethiopia reflect the lack of resources generally because of a low GDP and a high percentage of the population being considered as poor. This structure, which is common to most developing countries, often coupled with a deficient tax collection system, means that the tax base and tax revenues are often insufficient to sustain high enough per capita expenditure on public services, such as health. Nevertheless, per capita spending on health is steadily growing (see Figure 1), with its biggest jump initiated after the reform. The recent increase occurred in both public and private sectors, with public spending growing much faster because of the injection of funds from external sources in the form of aid. Nevertheless, even at the relatively high level of current spending, expenditure on health is still far from sufficient, its quality and distribution across the population still heavily criticised and falling short on MDG targets for 2015.

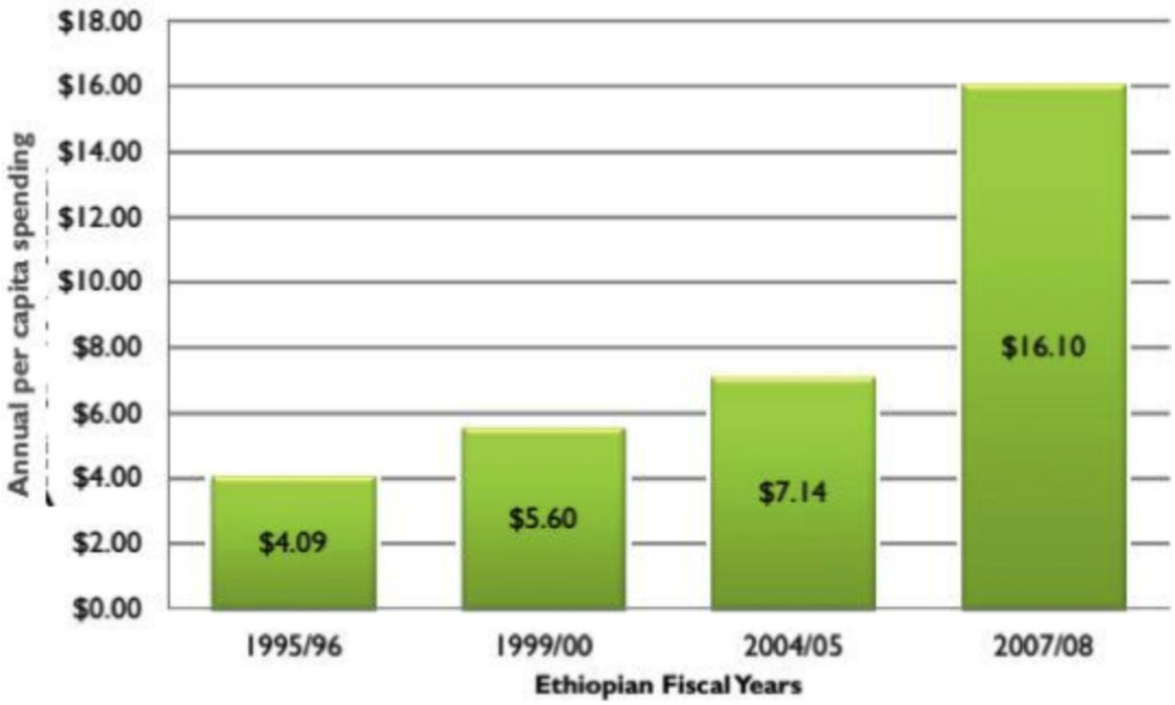

Figure 1 Trends in annual per capita spending in health in Ethiopia (US$).

Source: FMOH: Ethiopia NHA Reports (FMOH 2001, 2003, 2006 and 2010b).

A further limitation of the health care system is that in most rural areas, the quality of health care is compromised due to the limited availability of resources, in particular skilled human resources, adequately functioning diagnostic equipment and essential drugs.

Activity 2

Read the article 'Health Care Financing Reform in Ethiopia: Improving Quality and Equity' (USAID and Health Systems, 2000) in Appendix A. This will provide a good overview of the issues, and some of this material will be revisited below. What surprised or was new to you from reading this document?

Comment

I do not know how familiar you are with health care financing reform. Undoubtedly, there is a range of existing literature on health care financing reform in Ethiopia. The document you have just read provides a succinct overview to aid your engagement with some of these issues below. To prepare for the assessment at the end of the module, you may want to keep a note of the main issues you have identified, and you may want to revisit this document to evaluate what theory can do to further the understanding of these issues, and the ability to choose among alternative courses of action.

The main features of the reform are presented in Table 1. Your list of points may differ, but it is important to compare it with the one below.

Table 1 Main components of health sector financing reform in Ethiopia.

Major components	**Descriptions**
Revenue retention and utilisation	• The health care financing strategy followed by the respective regional laws, allowed health facilities to retain and use their revenue for health service quality improvements.
Systematising fee waiver system	• A mechanism for providing services to the poor free of charge through a fee-waiver system, as well as through free provision of selected public health services. • However, a strong need existed to systematise and standardise these services, and to make eligibility rules clearer. For instance local authorities had been issuing fee waiver certificates to the poor as verified through local social justice systems at the time of sickness.
Standardising exemption services	• Some public health services have been provided to all citizens free of charge regardless of level of income. • Services that were provided free of charge in some public health facilities were not free in others. In addition, there was no clear distinction between the financing and service provision. Again, eligibility and regional differences needed standardising. • Moreover, health facilities were providing free services without budgetary/funding support for these activities.
Outsourcing of non-clinical services in public hospitals	• Health care financing strategy considered outsourcing non-clinical services such as: catering, laundry, cleaning, gardening, and security. • Maintenance to improve efficiency, reduces spending, and reduces the burden on hospital management.
User fee setting and revision	• Health facilities have been collecting revenue in the form of user fees. • However, these fees have never been systematically revised and no longer reflect the cost of providing services, nor have the fees been adjusted based on the user's ability to pay for them. • The health care financing strategy clearly stipulated that user fees needed to be revised to reflect the costs of delivering health care services. • It also underscored that individuals should be charged according to their ability to pay. • Cost sharing between the government and users was one of the principles of the health care financing strategy.

Initiation of health insurance	• Out-of-pocket spending accounts for 37% of total spending in health (FMoH 2010b). • Direct payment at the time of sickness is considered 'unsuited', especially for the poor, and because of 'the risk of impoverishment or destitution', according to the World Health Organisation (WHO) (2010). • WHO further stated that '… when the reliance on direct payments falls to less than 15–20% of the total health expenditures then the incidence of financial catastrophe routinely falls to negligible levels' (WHO 2010). • Direct payments are inequitable as they are regressive, allowing the rich to pay the same amount as the poor for services. • The WHO report also revealed that if households are spending more than 40% of their disposable income (income after taxes have been deducted), they could become impoverished. • Health spending also accounts for a significant proportion of household disposable income, and this level of spending could be prohibitive for accessing health care services. • Process of initiating health insurance schemes, social health insurance for the formal sector, and community-based health insurance (CBHI) for citizens in the informal and agriculture sectors.

Establishment of a private wing in public hospitals	• In most regions of the country public hospitals are allowed to open and operationalise a private wing with the primary objective of:
	  • improving health workers' retention
	  • providing alternatives and choices to private health service users
	  • generating additional income for health facilities.

Health facility autonomy through establishment of governing boards for hospitals and governing bodies for health centres	• Before the start of health financing reform, Ethiopian health facilities experienced awkward and inappropriate communications from major administrative health officials at different levels.
	• These decision makers were also physically detached from the health facilities and were not responsive to day-to-day client health service needs.
	• Health facility autonomy through establishment of a health facility governing body including:
	  • involving appropriate representatives from the local administration
	  • health facility
	  • the local community.

Thus the health finance reform in Ethiopia includes measures to retain revenue at the health facilities to improve care delivery, to train and improve human resources, to introduce a systematic fee waiver scheme for the poor and standardise exemption services, and to develop better governance structures. It also encompasses rethinking how households should bear the cost of health care, either through user fees, and what the adequate level should be, or through alternative forms of private insurance mechanisms.

Activity 3

Review the strategy and the practical application of the reforms in a district you are familiar with. You should consider what has worked well, and what has not, and why. Start thinking about possible future directions of the reform based on the current health financing landscape in the country. To think about the reform, you may find it helpful to use the same disaggregation of its main components as in Table 1.

Comment

I hope you were able to link the discussion of health sector financing reform that you have explored here, and in related documents, to a particular district to understand how the reforms are being applied in practice. You will recall from the Berman and Bossert summary, that reform in developing countries is very difficult, and that the authors were unable to draw strong conclusions about whether reform works.

There is no single answer to our question. Your response would likely be different from district to district. Moreover, it is likely that some districts are more successful in engaging with and implementing reform than others.

5 Health financing reform achievements in Ethiopia

In 2001 and 2003, Ethiopia conducted activities to prepare for launching the various reforms, such as experience-sharing visits, training and capacity-building events, establishment of prototype legal and operational documents and workshops on policy advocacy and consultation.

In 2004 and 2005, the three big regions of Amhara, Oromia and SNNP (Southern Nations, Nationalities, and Peoples' Region) adopted the legal and operational frameworks with technical support from the ESHE-II project and adapted the operational guides to their regional contexts. The legal frameworks and operational manuals were further implemented by other regions such as Tigray, Benshangul-Gumuz, Gambella, Harari, Addis Ababa and Dire Dawa. The remaining two regions, Somali and Afar, have also finalised ratification of the legal frameworks, and adopted the operational manuals. Government authorities at all levels have reported that these operational frameworks and guidelines were very useful for proper implementation of the various reform components. Training of trainers and actual roll-out training were organised for managers in all regions. Moreover, hospitals and health centres were also introduced to the financing reforms (Health systems 20/20, 2012).

Table 2 Health facilities implementing health financing reforms by region.

N/S	Administrative region/city	Number of health facilities		Number of facilities implementing the reform		Percentage of facilities implementing the reform	
		Hospitals	HCs	Hospitals	HCs	Hospitals	HCs
1	SNNP	16	578	16	546	100	94
2	Amhara	16	745	16	358	100	48
3	Oromia	35	1053	35	1053	100	100
4	Tigray	12	211	12	118	100	56
5	B/ Gumuz	2	29	2	21	100	72
6	Harari	2	8	2	8	100	100
7	Dire Dawa	1	15	1	15	100	100
8	Gambella	1	18	1	1	100	6
9	Addis Ababa	5	31	5	31	100	100
10	Afar	4	40	0	0	0	0
11	Somali	8	62	0	0	0	0
Total		102	2790	90	2151	88	77

Source: USAID (2010).

We will now review the implementation of the health sector financing reform. After having done the activity on your district in the last section, compare your notes with those underneath. You may want to talk to your tutor and colleagues, who worked on the same region, about this activity.

Table 3 Performance in the main components of health sector financing reform in Ethiopia.

Health sector reform components	**Major achievements**

Health facility-based revenue retention and utilisation	• Endorsing legal frameworks and adoption of operational guides in Amhara, Oromia and SNNP.
	• Retain and use their internally generated revenue as additive to their regular government budget.
	• The health facility-level retained revenue is being used for quality improvement.
	• In the regions that are already implementing the reform, only the new health centres have not yet started revenue retention.
	• In 2009 and 2010, data collected from Amhara, Oromia and SNNP states that although the amount of retention varies from health facility to health facility, generally the retained amount is large enough to contribute to improving the quality of health services in health facilities.
	• The latest supportive supervision data report revealed that about 42% of total expenditure from retained revenue was used for procurement of drugs and medical supplies.
	  • Many health facilities procured essential diagnostic and health service delivery equipment
	  • Some institutions maintain and operationalise their equipment and vehicles using their retained revenue.
	  • Eight per cent was used to transport drugs and medical supplies, and fuel and lubricant for facilities with vehicles.
	  • Since the implementation of health sector reform stock-outs of essential drugs have been substantially reduced.
	  • Establish or maintain the water supply system in the health institutions.
	  • Some centres and hospitals bought generators to ensure availability of electricity

Systematising fee waiver and exemption systems	• Poor household's having better access to health services was observed in Amhara region, where the new fee waiver system is fully implemented. • More than one million participants were selected through community participation and benefited from free health care services. • The average number of fee waiver beneficiaries was nearly eight thousands and the government budget allocation for waiver reimbursement per district was a round ETB 21,000. • More than 50% of the health facilities were reimbursed on the basis of a fee for service and the rest reimbursed on a capitation mechanism. • In other regions, the full implementation of the new fee waiver system is not yet complete.

Standardisation of exempted health care services	• Based on regional legal frameworks, health institutions are implementing exempted services (such as immunisation, antenatal care, postnatal care, delivery at primary health care unit, treatment of tuberculosis, and other public health services).
	• Exempted services are lists and posted by health institutions to help and educate users about these services, including which ones are free.
	• A report in 2009/10 by USAID Bilateral Health Sector Financing reform project data showed that 59% of health centres and 38.1% of hospitals visited in the reporting year posted the list of exempted health services on their notice boards.
	• Of these, the majority of health centres were in Amhara, and the rest from Oromia, and SNNP, and all hospitals were from the Amhara region.
	• The major reported challenges encountered while providing exempted health services included:
	  • shortage of drugs and medical supplies
	  • absence of clear guidance on whether to fully or partially charge for services
	  • additional costs incurred for the provision of exempted health services,
	  • inadequate support both from the government and NGOS for the provision of these services.
	• Because of these facts some facilities charge for delivery-related services and supplies such as laboratory services, gloves, glucose and some drugs.

Establishment of private wings in public hospitals	• Some of the federal and regional hospitals established private wings to generate additional income for health professionals and health facilities. • The private wings offer more choices to users while also addressing improvements in health worker retention and income generation for the facilities.
Health facility autonomy through establishment of governing bodies	• Governance is one of the six building blocks of countries' health systems (WHO, 2010). • Health centres and hospitals in health care financing reform started regions established governing bodies. • In 2009/10 a health sector financing reform report in Amhara, Oromia, and SNNP regions project's has shown that 96.3 % of health centres and all hospitals established a health facility governing body at the time of supervision visits. • Only 3.5% of health centres in the SNNP reported that they had not yet established a governing body. • Of those that established a governing body, nearly 83% indicated proper functioning and as evidence, facilities listed and indicated major health care finance-related decisions made by the governing body.

	• Some operational challenges were observed in the governance of health facilities:
	  • most facilities noted a high turnover of the governing body
	  • absence of members as a result of their busy work schedules
	  • lack of incentive mechanisms is a major challenge.
	• Measures taken to overcome these challenges included:
	  • continuous discussion and communication with the woreda administration and woreda health office
	  • scheduling meetings at more convenient times.

Outsourcing of non-clinical services in public hospitals	• The health sector reform report showed that among all hospitals covered during supportive supervision, only three hospitals in Amhara region outsourced non-clinical services such as supply of food items.
User fee setting and revision	• The health care financing policy of the government promotes cost sharing between the government and users as one of the key principles of the health care financing strategy. • The challenge is the regional laws vary in terms of mandating the user fee revision and setting. • For example, in Amhara and Oromia, this mandate is given to the regional government, but SNNP health institutions are given the responsibility of setting and revising user fees. • Moreover, a recent user fee revision study conducted by the health sector financing reform project showed that there are still discrepancies in adherence to regional legislation. • For example, in Amhara region, although the regional law gave the mandate of user fee revision to the regional council, health centres and hospitals revised user fees on their own.

Initiation of health insurance	• The Ethiopian government is in the process of initiating two types of health insurance schemes:
	  • social health insurance (SHI) for the formal sector
	  • CBHI for citizens in the informal and agriculture sectors.
	• The necessary legal backgrounds are already in place for the piloting of CBHI schemes as well as for initiation of the social health insurance programme.
	• The social health insurance agency has been established and is being staffed with required professionals.
	• Since 2011, community health insurance schemes have been piloted in 13 districts of four regions of the country.
	• The health sector financing reform project monitoring reports showed that health service utilisation by CBHI pilot scheme members has substantially increased in the pilot districts.
	• Patient load in the public facilities that are providing services for community-based insurance members has also increased.

6 Equity in the health sector financing reform

There are a number of key measures that could be used to evaluate the success of a country's health sector. We have already partially discussed the most critical ones: equity, quality, efficiency and effectiveness.

Activity 4

Take a few moments to reflect on what you understand by equity. How is equity different from equality?

Comment

Equity is about ensuring that people have what is needed to ensure a full and healthy life. Equality is different as it is about ensuring everyone has access to the same things for a full and healthy life. But as we know, people's health and robustness varies dramatically so just ensuring that people have access to equal health care may not be sufficient for equity. The health of the poor is often compromised because of the harsh work they undertake, their poor diet and inadequate shelter, meaning that they have greater need for health care. So equality of provision, which in itself is a challenge most societies fail to achieve, would not necessarily be sufficient to ensure equity, where all enjoy good and similar health status. Equity seeks to redress the differences in health outcomes among different groups, however defined, geographically, socially, ethnically or demographically, by providing the health care that each individual needs.

6.1 Horizontal and vertical equity

Equity can be defined as either horizontal or vertical. *Horizontal* equity is the equal treatment of equals. For instance, it may imply that those with the same illness or health need would be given the same treatment. *Vertical* equity, however, relates to how differently individuals in different circumstances should be treated; a definition that is often used is 'the unequal but equitable treatment of unequal'. An example of this concept applied outside health care is progressive taxation and the proportionately higher level of tax the rich are supposed to pay.

While there is less doubt about horizontal equity as a fundamental principle all health systems should seek to achieve, vertical equity is a much less straightforward goal, as it requires judgments to be made about *how* different care should be for individuals in different circumstances.

6.1.1 Vertical equity

For health economists, one of the most important strategic research issues in the next decade will be how views about equity are to be incorporated into the measurement process. This is because, as we have seen, considerations of equity are highly contested.

Policies that involve targeting disadvantaged groups are typically seen as vertical equity initiatives. Examples include exemptions on user fees, resource allocation formulae that

target geographical regions with greater needs, and progressive payment scales used in charging social health insurance levies.

6.1.2 Horizontal equity

It is often suggested that horizontal equity is relatively more straightforward than vertical equity, but there are controversies in this area too. The problem with establishing a criterion for horizontal equity is determining precisely the dimensions on which the equality between individuals is to be achieved. The most commonly cited horizontal equity criteria are: equal spending for equal need; equal access for equal need; and equal utilisation for equal need. Furthermore, the criterion of equal health is often added into the debate, although this could be interpreted more as a vertical equity objective. At first glance, with the exception of equal health, there does not appear to be much difference between these criteria. However, upon closer examination, slight but significant differences emerge.

The following extract from Stephen Leeder (2003) discusses the notion of equity and the differences in how it can be interpreted. At the same time as you are reading it, think about whether this furthers your understanding of horizontal and vertical equity, or introduces a political dimension to it.

Box 1 Equity, opportunity and fairness

In 2009, I attended a workshop on health economic issues with health economists sponsored by the Norwegians fund in Norway. Participants included economists from different part of the world, the USA, Europe, Asia and Africa. We were discussing resource allocation, and distributions during the first one and half days. Ideologically, participants had divided into two groups – the USA and the rest of the other country participants.

On the second day afternoon, the leader of the US team said, 'the difference between us and you others believe in equity and we do not. In the United States, people are less interested in making sure everyone gets care than that those who can get it get great care. They accept not getting care *now* if they can see the opportunity to improve their position and succeed, so that, when they get the money, they will be able to buy quality health care the minute they want it. It is all about opportunity. People in the United States want opportunity, not equity. That is what we think is fair.'

It was important to mention that the US delegate said what he did. It cleared out all the confusions. It reminded us that not all societies, and not all people within a society, share a common view of what is fair. In the United States, fairness means that you will be encouraged to seek individual success without having to worry much about anyone else.

In rest of the group members, there is a general interest in the well-being of others rather than individual cases. We doubt that Robert Putnam could have written his book *Bowling Alone* about Australia. Putnam's book mourns the loss of social capital, a resource that grows from community trust and participation. Putnam especially mourns its replacement with a fierce individualism.

These are big questions, and clearly there is no right or wrong answers in this case! There are several approaches, each involving important value judgments as to what is seen as fair. As we can see in the above discussion, the difference between participant from the USA and other countries is often fundamentally differing about values of their opinions. One viewpoint broadly sees equity in terms of equality of opportunity, while an opposing viewpoint sees it more in terms of equality of outcomes. The former tends to favour a *laissez-faire* approach to government, while the latter tends to be associated with greater levels of state involvement, particularly in the establishment of a welfare state. Other perspectives view the state not in terms of equalising outcomes but of ensuring the provision of basic minimum services such as health care services.

Whichever perspective you take, it is worth reflecting on what you believe to be the objective of the social policy maker in your ideally 'equitable' society – and, in turn, the type of health sector that belongs in this type of society.

(Leeder, 2003)

6.2 Do user fees increase inequity?

The imposition of user fees is frequently asserted as both the problem and the solution in accessing health care. Proponents of user fees recommend them on two grounds. The first is that when health spending in total is low or falling, fees are recommended as a simple way of mobilising more money for health care than existing sources provide. Secondly, and paradoxically, when health expenditure is high or rising quickly, fees are recommended as a way of improving efficiency by moderating demand and containing costs. The following quote is a discussion of the opposing arguments around user fees from Andrew Cresse, a health economist at the WHO. Cresse highlights the problems with user fees.

Box 2 User fees increase inequity

Opponents of user fees attack them as a political strategy for shifting health care costs from the better off to the poor and the sick, pointing to the trade-off between this method of raising revenue and maintaining access to care based on need rather than ability to pay.

Dramatic differences exist between countries. Levels of and trends in national income and the condition of health systems vary widely among countries and local context needs to be considered when making comparisons. In most of the very poor countries of sub-Saharan Africa fees have been raised or introduced, sometimes after years of commitment to free health care, as a way to provide small but sometimes critical supplements to government health spending of less than $5 per capita.

In these extreme situations fees have been a mechanism for finding additional funding. How successful have user fees been in this context? Measured as a percentage of total government health spending, income from user fees remains at less than 5% in most African countries, although it seems to be somewhat higher in Asia and has risen to as

much as 36% in China. But, overall, experience with fees as a device for raising revenue in poor and transitional countries is modest.

User fees can be costly to implement, and income based exemptions in particular have widely proved difficult to manage. Some major shifts in access to and use of health services have been recorded in several countries implementing a policy of user fees, with use in rural areas falling by over 50% a year for several years … Increases in maternal mortality … and in the incidence of communicable diseases such as diphtheria and tuberculosis have been attributed to such policies … A contemporary commentator said of Vietnam access to health care increasingly depends on income, and another said of China access to health care is largely based on the patient's ability to pay, and many cannot afford care.

In the industrialised countries the context is one of comparative economic wealth and stability and, in the main, of relatively well functioning and accessible health systems.

In both types of system, but more so in NHS-type systems (Britain, Ireland, Italy, and Spain), overall control of costs has generally been relatively successful, either through mechanisms of financing through a single source with relatively hard budget limits or through ceilings on premium contributions and reform of provider payments; thus the role of user fees is much more as a tool for moderating demand than a source of revenue. As an instrument for controlling costs by managing demand, user fees have had limited success. From several industrialised countries there is evidence that increasing fees does reduce use of health services, though not necessarily service costs. Reduced use of services has sometimes been accompanied by increased intensity in the form of longer or more expensive treatment episodes. In the area of cost control, user fees seem to be a relatively weak policy tool because they focus on patients' behaviour rather than that of providers. Not only are providers a more powerful determinant of health care costs, by making decisions on behalf of patients for all but first contact visits, but changes on the supply-side in purchasing and provider payment mechanisms have shown themselves to be more powerful ways of influencing providers' behaviour and service costs …

And there remains the question of equity. Shifting the financing base in the health sector, even at the margin, can have profound effects on access to services. No country's experience shows this more clearly than China, where some 800 million people lost their health insurance protection during the 1980s, when rural insurance collapsed and fees grew in importance from 24% to 36% of health care finance. User fees shift the financing burden away from population based, risk sharing arrangements – such as funding based on tax or social insurance – and towards payments by individuals and households. The higher the proportion of user payments in the total mix of financing for health, the greater the relative share of the financing burden falling on poor people. Poor people are both sicker and more sensitive to health care prices than wealthier people. A range of policy options other than user fees exists for dealing with situations of both under financing and rapid growth in expenditure. As an instrument of health policy, user fees have proved to be blunt and of limited success and to have potentially serious side effects in terms of equity. They should be prescribed only after alternative interventions have been considered.

(Cresse, 1997, cited in Jan *et al*, 2005)

Activity 5

Discuss the rationale and the possibilities for overcoming Creese's (1997) concerns about equity, particularly in low income countries.

Comment

The general rationale for user charges is twofold: first, they act as a means of rationing demand; and second, they are seen as a revenue-raising mechanism, thereby promoting the financial sustainability of health services. Such charges tend to affect the poorest groups most heavily and potentially deter the use of necessary health services.

One possibility for addressing this problem is the use of exemptions for certain disadvantaged groups. However, the evidence as to the effectiveness of such policies in practice is mixed. Reggler (1998), in the context of the British NHS, argues that user fees can be important in stemming demand and thus reducing unnecessary costs. The danger, however, is that price rationing of this nature leads to less use of *necessary* services as patients are not always well informed about their health care needs.

It is not surprising that health systems are seeking revenues beyond user fees, out-of-pocket expenses and taxes, and why insurance markets and mechanisms are seen as possible solutions to a revenue squeeze. But to fully understand the implications of introducing formal insurance mechanisms in the health sector, you will need to turn to the next units.

7 Summary

In Ethiopia, health care financing reform seems to have positively transformed the health sector services in the country. Revenue retention has improved the quality of health services and improved citizens' perceptions of health services. The overall functioning and performance of the health system are enhancing health service equity and promotion and use of public health services. They have also improved the performance and satisfaction of health professionals. A functioning governance system is critical to ensure health facility autonomy and accountability, timely and responsive decision making through representation, and active participation of health sector actors, including the community. However, health problems and ill-health continue to exist despite these laudable initiatives. For example, implementation of the new fee waiver system and standardisation of the exemption system varies from region to region and inequity in health care delivery still exists. Health systems and programmes are often blamed for inefficiency and ineffectiveness, putting them under pressure to be re-orientated and re-organised. This unit summarised and discussed a lot of open-ended questions. Next you will learn some fundamental economic theories which will help your understanding of the issues at stake in a more formal way, and what can occur when health is provided for via the market, governments, or through insurance mechanisms. A critical understanding of both the policy issues, as well as the relevant theories, will place you in a privileged position to evaluate possible solutions

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Unit 3: Public goods provision

1 Introduction

> It is a fundamental error to imagine that capitalist economics means an absence of government intervention. (Barr, 1994, p. 29)

Nicholas Barr is an economist specialising in the economics of public services. He was writing in the early 1990s on the economic problems of the early stages of the transition in eastern Europe and the ex-Soviet countries from centrally planned economies to capitalism. In capitalist economies change is driven by private investment and market exchange. By 'capitalist economics' Barr means the economic theory of the operation of such economies. The transition economies initially faced rising unemployment and poverty, widening inequality, deteriorating 'social' provision of health care, declining output and poorly functioning markets. Tackling those problems required the recognition that high-income capitalist economies both display and require high levels of government expenditure and regulation, to help markets work efficiently and to promote the access of all citizens to the economic benefits available. Barr's quote, above, illustrates a central theme of this unit.

Unit 2 discussed some of the major issues affecting the Ethiopian health care system today. These included how to sustain a high-quality health care supply without the risk of increasing public debt, high dependence on foreign aid, mobilisation and efficient allocation of resources, and an equitable distribution of health and health care. At the core of this debate is the role of government not just as a funder of health care, but also potentially as a regulator of health insurance markets and health providers in general. This unit will analyse theoretical arguments in favour and against government intervention in situations where goods and services, such as health care, have characteristics that undermine markets as efficient allocative mechanisms (situations where there are market failures). In doing so, it will revisit some of the concepts already discussed related to inequalities, asymmetric information and the characteristics of health as a public good. This unit builds on the demand and supply analysis you have encountered in Module 5 Economic theory and the health system.

Market-based – or capitalist – economies need governing in order *both* to promote market efficiency *and* to try to ensure the social inclusion of all citizens. These two broad objectives are not necessarily in conflict, rather the contrary: achieving one will help support the other. This approach reflects a real shift in economic policy debate at the beginning of the 21st century. While economists have long argued that greater efficiency may require the acceptance of greater inequality, there is today a more active search for policies that promote both equity and efficiency. As a result, there is a new acceptance of active government, after the political pressure of the 1980s and 1990s to restrict government activities. We seem to be leaving behind the late 20th-century preoccupation with whether governments should be bigger or smaller, and turning instead to consider how governments can be *smarter* (Van Reenan, 2001).

Part of smarter government is a recognition that markets and economic activity are 'governed' not only by governments but also by voluntary collective action. People get together in a wide variety of associations, outside the framework of formal government, to influence aspects of our economic lives: for example, there are many charitable activities

that help to support vulnerable people in capitalist economies. These associational forms of governance are sometimes summarised as 'civil society'.

By 'governance' in this unit, we mean both government and such voluntary collective action. We begin by reviewing in a more formal way some *efficiency* reasons for why governments intervene in the economy: to make markets work better, or to supply goods and services that the markets cannot efficiently provide. We then consider the scope for collective rather than government action to promote both efficiency and equity, using the example of local management of natural resources. Later, we discuss the 'welfare state'. To what extent does government provision of cash benefits and services, such as health and education, reduce inequality, and does this 'welfare' spending have costs in terms of economic efficiency? Finally, we consider democratic government itself, not as an independent economic agent, but as an agency to which we delegate actions too hard to achieve by voluntary collaboration. We analyse just one difficult case, where there is conflict between the interests of different voters: policies on redistribution.

Learning outcomes

After studying this unit, you will be able to:

Knowledge and understanding

- discuss the role of governance in promoting economic efficiency, equity and well-being
- explain concepts of market failure and discuss their policy implications
- discuss how welfare states may influence both efficiency and equity
- outline economic explanations of government behaviour with respect to redistribution

Practical and professional skills

- analyse problems of collective action in governing shared resources and providing public goods
- using measures of income inequality to assess redistribution.

2 Markets and government intervention

Markets organise the supply of many of the goods and services we consume, and our ability to buy them is therefore a key determinant of our well-being. However, there are some goods and services that we wish to consume which cannot be efficiently supplied through markets. This section uses economic theory you have already learned to explore some reasons for such market failures, to see why voluntary collective action may not work either. It then develops a rationale for government intervention to improve market efficiency.

We explore the problem of market failure through an environmental example: the supply of environmental 'goods' such as clean air, or, to put the same point in another way, the supply of environmental protection from 'bads' such as pollution.

2.1 Externalities and public goods

> The first step to solving a problem is to admit that you have one. For Houston, years of living in denial about its polluted air have made things even worse. This conurbation, which each year pumps 200,000 tons of nitrogen oxide (a component of smog) into the air, has recently beaten Los Angeles for the title of America's smoggiest city. (*The Economist*, 2000)

The situation in Houston, Texas, is an example of a worldwide problem of urban smog. Urban air pollution is generated by industrial emissions and by car exhausts. However, it can also be cleaned up: London had its last great smog in 1954. So what can economics tell us about why air pollution happens and the problems of stopping it?

We will start by analysing the problem from the point of view of the urban citizens. Suppose that residents of a polluted city such as Houston all want cleaner air. Could they buy that environmental improvement individually through the market? If not, why not? You may have thought of a number of problems. An obvious one is that air moves about and cannot be divided into packets above each house for private ownership and cleaning up. To clean up your own air is to clean up the air for everyone. Economists call goods like clean air **public goods**.

The definition amounts to saying that a 'public good' is not divisible into separate bits for sale on a market. Rather, each person can use it as they choose without subtracting from the amount available for others and no one can be excluded from using it. Military forces ('defence'), street lighting and rural road networks: these goods and services, generally provided by governments, come reasonably close to the definition. Very few activities fit it precisely. As with many economic concepts, a 'public good' is an abstract idea which can be applied to explain aspects of the economic world. Street lighting, for example, benefits anyone walking down the street. Most rural and urban roads – until congested – are available for anyone who wishes to drive, cycle or walk along them. If the military deter armed aggression, everyone is defended. Related to health, if an epidemic is stopped, everyone benefits from not being infected and seeing their loved ones freed from infection also.

Let us return to our polluted city, and consider further the problem facing citizens in search of clean air via market mechanisms. Suppose I own a firm producing a well-tried gadget that greatly reduces pollution from industrial processes, such as petrochemicals production and oil refining in Texas, that are damaging city air. Why cannot I sell my gadget to those who want to breathe clean air? Put like that the question answers itself. I am trying to sell the gadget to the wrong people. It is no use to the consumers. The producers of the pollution are the industrial firms. So why not sell the gadget to them?

Well, why should they buy it? It is just another industrial cost (and the owners may well not live in the city and can avoid the smog altogether). For the polluting firms, such as the petrochemical and oil refining industries of Texas, the damaging emissions are a by-product: a by-product of their activity that imposes costs on others (the citizens of Houston) for which the firms may not be required to pay compensation. In other words, the pollution is an **externality**.

You can think of externalities as ‘spillover effects’: effects of one person’s or one firm’s actions on the welfare of others that do not pass through the market mechanism. So pollution is an externality because firms do not have to pay for its costs to others.

So how about the consumers who want clean air paying the producers to use the clean-up gadget? Imagine you are one of the people who cannot breathe properly, and you want to do this. What is the snag? You probably cannot afford on your own to pay all the producers to use the gadget. You need all those who want clean air to get together to pay.

However, there is a problem with this kind of collective action. Each person may think, well, if I refuse, then others will pay, and I will still have clean air for free. Once the air is cleaned up, anyone can breathe it. Having access in this way to a public good you have refused to finance is called ***free riding***: you are taking a free ride on the payments of others. If each person seeks to free ride, then no one will pay for the clean up, and the air will stay polluted. Even though if you knew that beforehand, you would have preferred to pay if that action would ensure you would get clean air in the end.

The free-riding problem is a very common problem in economics and it is better understood using game theory. Game theory allows for a simple representation of economic problems where the outcome depends on more than one person, who may have a conflict in terms of preferred outcomes, and whose actions will affect it. Free riding falls under the category of games called the prisoners’ dilemma. In this case, and applying it to the smog example, there are lots of ‘prisoners’ (coughing citizens) in the polluted city, but you can model the basic problem by imagining a city of two people, as in Figure 1.

		Person 2	
		pay	do not pay
Person 1	pay	1, 1	−1, 2
	do not pay	2, −1	0, 0

Figure 1 A prisoners’ dilemma facing residents of a polluted city.

In this game, each citizen has a choice of paying to clean up the air, or not paying. If one agrees to pay and the other does not, then the one who pays must pay the full cost. If both agree to pay they split the costs.

This may be an unfamiliar representation of an economic interaction, but it is the way game theory often represents a game between two people, when they make decisions without knowing what the other player will do. This tabular form means that we read what happens when person 1 chooses pay or not pay horizontally, and the cell we read is determined by what person 2 will be doing, paying or not paying. The convention in terms of outcome net benefits read in each cell, which we will call payoffs, is that the first payoff is the one from person 1, the row player, and the second payoff, after the comma, is the payoff from person 2, the column player.

Activity 1

Lets choose the cell where payoffs are –1, 2. What are the actions each player will have chosen if this is the outcome of the game?

Comment

Person 1's payoff (–1) is read horizontally, from the row action pay; 2 is read vertically, from the column action not pay. So these are the payoffs players will get if person 1 chooses to pay and person 2 chooses not to. Each citizen has the lowest pay-off from supporting the whole cost of cleaning up; in that situation the cost to a player far outweighs the benefits of clean air (pay-off −1). To that, each player prefers not to pay and to leave the air polluted (if they both do so, their pay-off is 0, but they have a chance of earning 2 if the other player pays; this is the free riding scenario). Each, however, would rather pay half the cost of clean up if that guaranteed clean air (pay-off 1).

Activity 2

Work through this pay-off matrix carefully. What do you think the outcome of the game is?

Comment

Your first instinct may have been to argue that they should both pay because that gives them both a positive outcome of 1 each, and they get clean air. However, there is an incentive for both players to deviate from this socially optimum outcome. For the sake of example, let's look at person 1. Keeping person 2 in the column where he chooses to pay, but looking at the row of person 1 where he chooses not to pay, the deviant behaviour gives person 1 a higher payoff, 2 instead of 1. If we now do the same exercise for person 2, person 2 also has the same incentive to deviate if he thinks person 1 will pay.

So the socially optimum cannot be the outcome, because unless there is some way of trusting the other player will pay, and penalties in place in case one of them does not pay, this outcome does not satisfy individual incentives. So which one is the equilibrium? We have just seen that when the other player chooses to pay, each player prefers not to.

Let's now look at what each player prefers doing when the other player chooses not to pay instead: person 1 first. If person 2 does not pay (second column), Person 1 still prefers not to pay (a pay-off of 0 is better than –1). This is also the case for person 2: person 2 also prefers not to pay if he thinks person 1 will not pay either. In fact, this is the worst outcome for each player: if they think the other player is not paying, they do not want to bear the cost of clean air and still not get it! Putting all these pieces together, we have just seen that in this game, whatever the other player is doing, each and both players always prefer not to pay. Even though this is a gloomy conclusion, it makes the outcome of this game more predictable. We expect the outcome to be when both players choose not to play and each gets 0 as payoff (the status quo, no clean air). So the outcome is polluted air. Yet each person would prefer to pay half the cost and to clean up if only that could be organised.

The dilemma is that individual decision-making results in an inferior result for each person. The attempt to free ride is self-defeating. This two-person model can be applied to our example of a polluted city. If many players/citizens try to free ride, then the air will remain polluted and citizens will continue to cough. This property of having a strong free riding incentive, and a sucker payoff when a player tries to do the right thing, and ends up in its worst possible scenario, is common to all prisoner dilemma games. These exist in so many situations in economics, health, and our daily lives. Game theory in economics analyses such situations and how changes in incentives can lead individuals more naturally to do what is efficient and socially optimum.

The example of environmental protection has some particular features explored further below. But the prisoners' dilemma model of free-riding applies generally to public goods. Voluntary payment for public goods provision tends to be undermined by free-riding.

2.2 A rationale for government intervention

So how are public goods that citizens wish to consume to be produced? One method is government intervention. Suppose that a government – local, regional or national – wishes to intervene to 'produce' the public good of clean air. How might a government do that? Unlike some other public goods – such as street lighting – clean air cannot simply be produced and installed. Instead, a government needs to deal with the polluters.

To analyse the policy problem, let us start with externalities as a source of pollution and analyse their effects on the market for the products of a polluting industry, such as petrochemicals. This presentation follows the demand and supply analysis and the theory of the firm and markets you learned in Module 5 *Economic theory and the health system* earlier in this semester.

There is a cost of the air pollution that falls not on the firms in the industry but on local residents and society as a whole. It follows that the costs of production perceived by the firms (their private costs) are lower than the total costs of production to society (the social cost their actions cause).

Figure 2 illustrates the effect of the externality on market efficiency. We assume that the polluting industry is perfectly competitive. The curve labelled $MPC = S$ is the supply curve for the industry, which is derived from the marginal cost curves of the individual firms. P stands for private costs. So the marginal *social* costs (*MSC*), including the cost of pollution for residents, are higher than the marginal private costs as shown by the gap between the *MSC* and the *MPC* curves in Figure 2.

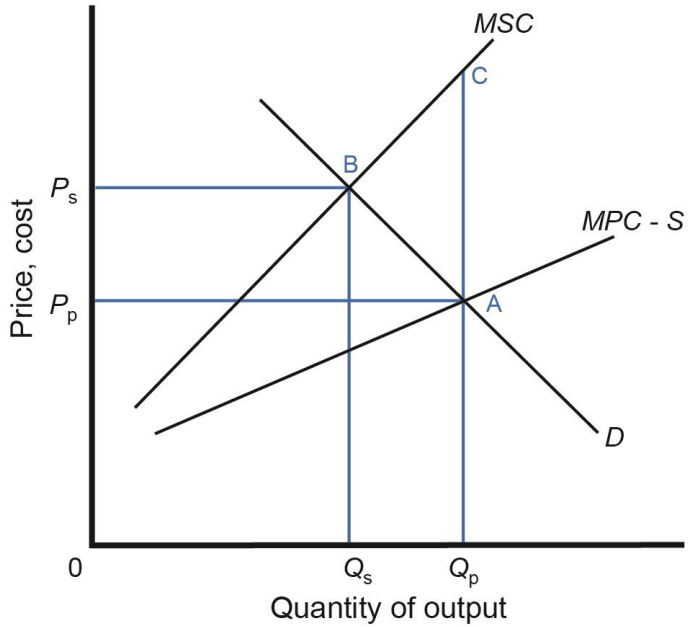

Figure 2 The divergence between private and social costs of a polluting industry.

The private market equilibrium is at A, where firms equate their marginal private cost to marginal revenue with price P_P and output Q_P hence supply equals demand. But this is not an efficient market equilibrium.

Activity 3

Take a moment to think about why point A is not an efficient market equilibrium before reading on.

Comment

At point A, individuals' marginal utility – expressed in their individual demand curves – is equated to the price they pay. However, the full marginal social cost when output is Q_P (point C) is above the market price P_P. For an allocatively efficient market outcome, the sum consumers are willing to pay for the last unit of output (indicated by the demand curve) should be equal to the full marginal cost of generating that last unit. In Figure 2, this would be at point B with price P_S and output Q_S. At B the marginal benefit to consumers is equal to the full marginal social cost. Where there are externalities in production of the type described, efficiency requires that price be equated to the marginal *social* cost: $MSC = P = MU$.

Externalities therefore imply **market failure**. A market failure identifies an opportunity for intervention to improve market outcomes. Note, however, an implication of Figure 2: consumers do not want pollution reduced to zero; rather the optimal outcome is less output and hence less pollution. We will consider the implications in two stages. First, we will look at how governments might achieve a market equilibrium at point B in Figure 2. Then we will consider what (smarter) policies might break this unappealing policy dilemma of less output or more pollution.

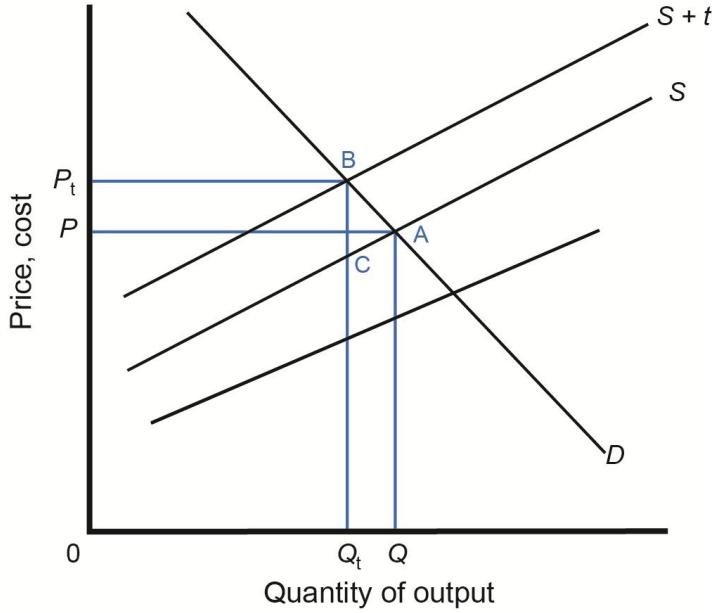

Figure 3 A tax on output in a competitive market.

Governments have two basic methods open to them to force output and pollution down. They can impose a tax that *internalises the externality*, that is, it increases firms' costs to include the full costs of their output including the social costs. This will ensure they make output decisions that move the market towards the social optimum. To see how that might work, we need first to analyse how taxes in general affect competitive markets (Figure 3).

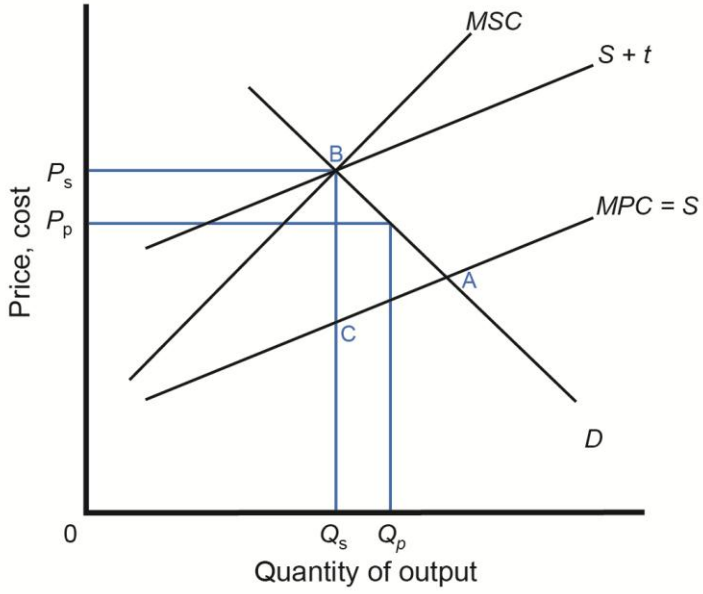

Figure 4 A specific tax on polluting firm's output.

Figure 3 shows a perfectly competitive market for an unspecified good. The market equilibrium without the tax is at A with price *P* and output *Q*. Imposing a tax *t* per unit of output shifts the supply curve upwards, because each unit's costs are increased by the tax.

That is, before firms take their profit on each unit, they must pay the tax, which they therefore experience as a cost.

The tax t is measured by the vertical distance between S and $S + t$. This is equal to the distance BC on Figure 3. The market equilibrium with the tax is at point B, where the supply curve with the tax $S + t$ intersects the demand curve D. Price has risen to P_t and output has fallen to Q_t.

Activity 4

How will the supply curve including the tax $S + t$ change in shape if the tax is *ad valorem*, that is, if its value is a percentage of total revenue at each level of Q?

Comment

Figure 5 shows an ad valorem tax on output in a competitive market. The distance between the supply curve without the tax S and the supply curve with the tax S + t will increase as output rises, instead of being constant. The market equilibrium with the tax is at B, with price Pt and output Qt.

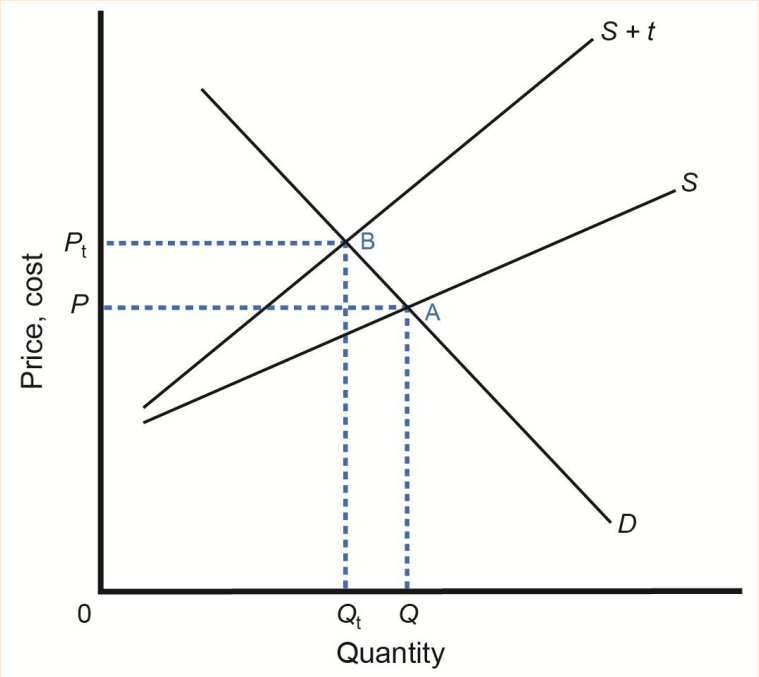

Figure 5 An *ad valorem* tax on output in a competitive market.

Now, armed with this diagrammatic analysis of taxes, we can return to the pollution problem. Figure 4 is based on Figure 2, and illustrates the use of a specific tax to force down output of the polluting industry to the optimum level.

The tax rate on Figure 4 is again the vertical distance between the supply curves S and $S + t$, equal to the distance BC. The market equilibrium without the tax is at A, with price P_P and output Q_P. The tax shifts the firm's supply curve to $S + t$, and the market equilibrium to B with price P_S and quantity Q_S. As the figure is drawn, the tax is at precisely the level to force

output down to the market optimum level Q_S. Achieving that in practice would not be easy. Government officials would need to calculate what the market optimum should be, and the precise tax needed to achieve it. There is a great deal of room for error.

Even if you managed to pull this off, however, as environment minister, you might feel rather dissatisfied. All that effort, and yet the air is still (despite less) polluted.

Activity 5

Why is that? What is it about the way the problem is set up that creates this outcome?

Comment

There are two key assumptions. The first is that the right solution balances people's desire for output and for clean air, so we get a little less of one and more of the other – rather than completely clean air. There is no overriding priority on breathing properly; output matters too. Consumers only value their own outcomes, and future consequences of pollution are still weighted lower than what would be needed to reduce pollution levels by more. Even more important, the analysis assumes that the technology used by firms is given. It does not allow for innovation, just for changes in output. Once there can be technological change and governments can support innovation, the dismal choice of less output and less pollution, or more of both, can be sidestepped.

2.3 Government intervention in market dynamics

Look back at Figure 4. How could the government, instead of accepting that the only options are less pollution plus less output or the status quo, create incentives for firms to find new technology and to clean up their emissions, that is, to innovate?

There are several ways in which the government can change the incentive structure facing firms. Let us start with the circumstances described above where a gadget already exists to clean up emissions. A government could use regulation to enforce its use: firms could be told that they must clean up to stay in business. This was a strategy used in Texas in early 2000s, where the state required cuts in industrial emissions of pollutants ahead of federal guidelines coming into force in 2007 (*The Economist*, 2000). Alternatively, firms might be taxed, not on output, but on measured pollution. Less pollution, less tax, hence an incentive to install the clean-up equipment.

Consider a regulation that raises firms' average and marginal costs because they have to install new equipment and use a new process to clean up emissions. This reduces pollution to zero. Assume the industry is perfectly competitive. Figure 6 is a diagrammatic analysis to show what has happened to costs and supply at the firm level.

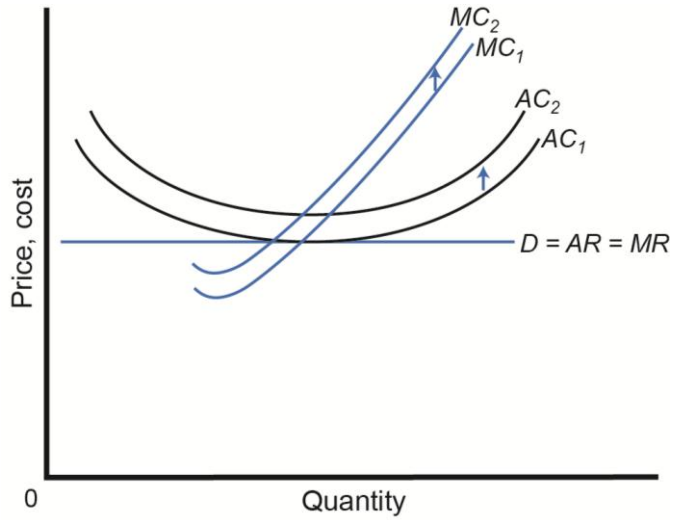

Figure 6 The effect of new clean-up equipment on a competitive firm's costs.

We can now show on a diagram how this change in firms' costs affects equilibrium price and output in the market in Figure 6. The new equipment shifts each firm's average and marginal cost curves upwards. Each firm's marginal cost curve is also its supply curve. Firms are now making a loss and some firms will leave the industry.

In Figure 7, the $MPC_1 = S_1$ curve is the industry supply curve before the regulations. (To simplify the diagram I have omitted the *MSC* curve.) After the installation of new equipment, the industry supply curve shifts to $MPC_2 = S_2$. Equilibrium output has fallen, and price is higher. If the equipment has reduced pollution to zero, there will be no separate *MSC* curve after the installation, since the externality will have disappeared: the marginal social cost and marginal private cost curves now coincide.

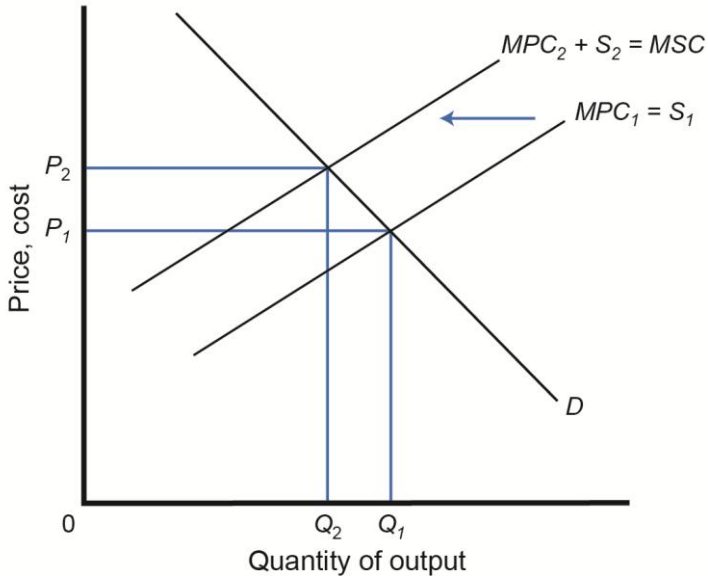

Figure 7 The effect of a rise in costs on the industry supply curve.

So far, we have been analysing pollution policy using the model of perfect competition. However, suppose that we now pose the policy problem in terms of incentives for firms to innovate, for example by developing less-polluting production methods. We then need to move away from the perfectly competitive market model, and use more appropriate models of imperfect markets, in which technology can be changed by firms, and in which firms can have diverse capabilities. In such markets, there is the interesting possibility that low pollution might be a source of market advantage for innovative firms, allowing them to operate profitably in highly regulated environments and to sell on innovative solutions to lagging firms.

In those circumstances, governments can try to offer firms incentives and opportunities to innovate, with increased market power for the leaders as the 'carrot'. Policies can include support for product development: for example, the creation of better, cheaper equipment for reducing emissions. Different outputs that are less polluting are another route to innovating out of environmental crisis: new high-tech firms moving into Houston are unconnected with the petrochemical industry and are interested in a clean environment for plant and staff. Regulations that restrict or heavily tax pollution can give a firm that finds a less-polluting solution a first-mover market advantage.

The more governments can create incentives to break the dilemmas imposed by current technology, the more efficient the solutions can be. Encouragement of a nascent 'green' industry supplying environmentally friendly solutions can both generate new markets and new employment and improve the environment; regulations can help to generate markets for such nascent industries; and government support for relevant research and development can get them started. The general point is that policies that create incentives for innovative methods of compliance – that tell firms what to achieve but not how to do it, and benefit those that generate new ideas – are both easier to monitor and generate more net benefits. This kind of solution is an example of what earlier we called 'smarter' government in a period of high industrial innovation and increasing environmental pressure.

3 Government intervention and economic efficiency

Government provision of public goods not only affects inequality; it also has a profound impact on the efficiency of the economy. In the 1980s and 1990s, economists generally argued that the effects were negative. Policymakers saw themselves as faced with a 'trade-off': more equality meant less efficiency, and policy had to choose. Now, as part of the search for 'smarter' government, economists are focusing on a search for synergy: for ways in which more equality and more efficiency might go hand in hand.

There are a number of reasons for this shift. One is the experience in Europe of the social, political and economic consequences of persistent unemployment from the mid-1970s onwards. Another is the rising perception of increased instability of employment in industries where jobs were previously expected to be long term. Economists are aware that many of the economic risks faced by individuals result from the operation of markets which – while 'imperfect' when compared with the perfect competition benchmark – have dynamic efficiency benefits such as innovation and growth. In these circumstances it is now widely argued that, if properly designed, the welfare state can help people to cope with market risks effectively, and thereby increase the dynamic efficiency of the economy. This section aims to give you a flavour of these arguments and their critics, using the example of benefits for the unemployed.

3.1 Risk, market failure and social insurance

In market economies, we try to prepare individually for risk by taking out insurance. We insure ourselves against burglary and car accidents. Many people in the UK pay into private pension schemes, seeking to insure themselves against destitution after retirement. 'Life' insurance is actually insurance against the consequences of our death for those who depend on us. In many countries – but few high-income countries – individual private health insurance is the only protection against the costs of treatment in illness. The market for private insurance is, however, subject to market failure.

Activity 6

Suppose you are employed. Can you ring up an insurance company – say the one that insures your car – and buy insurance against losing your job? If not, why not?

Comment

In the UK at present you can do this to a limited extent. For example, if you have a mortgage on your house, you may be able to insure against being unable to pay the interest, perhaps for a year. And if you are in good health, you may be able to insure part of your income against losing your job because of severe illness. But apart from that you are on your own.

However, we do not want to find ourselves destitute if we lose our job. So why is the market not providing unemployment insurance? What is the source of this market failure?

Think about this. Suppose you have a job you dislike. How might unemployment insurance affect your behaviour? Well, there are probably all kinds of ways of getting yourself sacked without the insurance company finding out that you have engineered it. The insurance company does not know the details of your individual situation; you have more information than the company. You can influence your own risk of unemployment, and the company cannot detect that – or not without major expense. The insurance policy furthermore has given you an incentive to change your behaviour – to engineer a paid break from work – to the detriment of the company's profits. This effect of insurance is, as seen in Unit 1, called 'moral hazard'. It is a quite widespread problem in insurance markets, but particularly affects those markets where it is hard for companies to collect information about the insured.

In addition to moral hazard, companies providing private unemployment insurance also find it hard to assess the extent of individual risk because of poor information. So they cannot price their policies efficiently, by charging more for a higher risk. Worse still, companies are uncertain about the likely scale of unemployment in the future: if there is a sharp general rise in unemployment, insurance companies may fail. For all these reasons, private unemployment insurance is not generally available. Market failures have created a missing market: there is no supply of a service people would like to buy. There is thus a market efficiency problem: markets are not responding effectively to consumer needs.

So what can be done? People want to ensure an income when unemployed. Provision of unemployment insurance in this sense has effectively been taken over by government in most high-income countries. There are two ways this can be done; they are complementary, and the mix varies between countries. Welfare state institutions are highly diverse, having grown in each country from a patchwork of local voluntary, mutual, government and private provision, but the economic *functions* those institutions fulfil are similar across countries.

Unemployment insurance can be provided through *social insurance*: compulsory contributions by all in work to a fund, to which employers also contribute and which governments may subsidise, that provides limited-term benefits to those who involuntarily lose their jobs. 'Socialising' unemployment insurance in this way makes it viable, because the government has much more effective powers of investigation than a private company of reasons for leaving jobs. Furthermore, since the insurance is compulsory, it brings together those at high and low risk of unemployment, reducing the overall cost of insurance protection for those at high risk.

Social insurance of this kind is backed up, in most high-income countries, by *social assistance*: these are cash benefits which are paid on the basis of need, not on the basis of prior contributions. Social assistance is always surrounded by conditions such as evidence of actively seeking work for those able to do so, evidence of disability for those unable to, and evidence of a lack of other means to justify benefit payments. These often onerous conditions aim to reduce the effect of moral hazard on the costs of social assistance. Typically, the amount paid out in social assistance rises when long-term unemployment rises. The mix of social assistance and social insurance varies between countries but together they respond to the missing market for unemployment insurance.

Activity 7

Let us think a bit more about the generosity of social assistance and the implications this may have for individual behaviour and efficiency. Which of the two following arguments do you find most compelling and why?

1. High replacement rates increase unemployment, and reduce output, because they encourage people to remain unemployed.
2. High replacement rates improve labour market efficiency, and increase output, because they encourage people to take risks and to retrain.

Comment

I don't know how you answered this question. It is a highly political debate and hard to resolve by the use of evidence. The fundamental problem is that the two arguments are rooted in different models of the labour market, including workers' behaviour which we will now explore.

Argument 1, still the standard textbook argument, can be explained using a model of a perfectly competitive labour market (Figure 8). You have not studied the labour market explicitly, but it functions in a similar way to any other market. There is a good, the number of hours each one of us supplies to the market, that is demanded by employers and

supplied by workers. The price of this good is the wage and earned income agreed. The higher the wage, the stronger the incentive to work (assuming the worker will not happily give up hours of work and extra income now that they can see that they can obtain a certain amount of income with fewer hours of work), so supply increases. But this can lead to a lower demand for workers as employers are more willing to substitute labour with capital when labour becomes expensive, unless the extra wage is the cost of attracting high skilled workers who are more productive. So in the labour market, under the assumption of a homogeneous market where all workers are as productive, and workers will not slack on their hours when wages are high, the same market mechanisms are in place: supply increases with the price, and demand decreases with the price of labour.

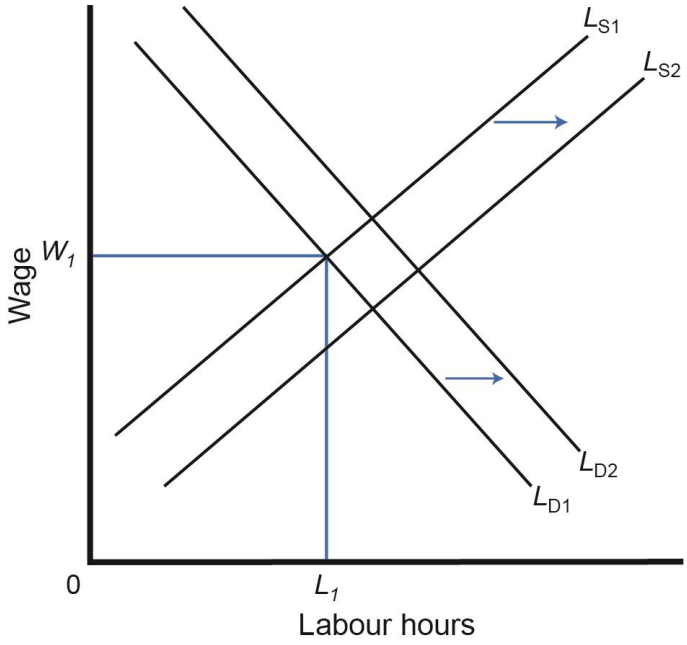

Figure 8 The effect of a reduction in benefits in a perfectly competitive labour market.

Suppose that there is a given level of benefit received by those not working, supported by a tax on employers for each worker they employ, as well as by workers' tax payments. Those benefits and the taxes that support them now fall relative to the going wage W_1. Two effects might occur in this model. Employers, paying a lower tax per worker, experience a lower total cost per worker, and labour demand shifts rightwards from L_{D1} to L_{D2}. Workers, receiving lower benefits, find that wages from employment are now higher relative to income if they stay at home. So more workers are willing to accept work at a given wage, so the labour supply shifts rightwards from L_{S1} to L_{S2}. Either effect will increase employment above L_1. The effect of the two shifts on the equilibrium wage may be to raise or lower it.

It is also argued that workers work harder if social assistance is low because they fear the sack. These have been influential arguments. The OECD (1994, p. 213) argued in 1994 that 'if unemployment is to be kept low, it is vital to limit entitlement to benefits'. In 1998 they complained of lack of 'progress' on this recommendation (OECD, 1998, p. 15). During the 1990s, however, Germany, the Netherlands, France and the UK all reduced entitlements to benefits and/or restricted their duration. Can you think of criticisms to this argument?

The model in Figure 8 assumes a unified labour market. However, in most countries the labour market is segmented. Workers in unionised 'primary sector' jobs have rights to unemployment benefit, while 'secondary sector' workers have few unemployment benefit rights. Social assistance benefits are generally lower than social insurance benefits, and require stringent evidence of seeking work. A reduction in assistance relative to earnings may be brought about (as in the UK) by heavily restricting unemployment benefits, forcing more people onto social assistance.

To see why this segmentation may provide support for Argument 2, consider a person's choice between taking a low-paid 'secondary' job, or waiting for a chance to get a primary sector job. If the level of benefit is generous and the conditions attached to receiving it are not too onerous, a feasible choice might be to wait and retrain, increasing the chances of moving to a primary job.

> For the person laid off from Joe's Café it may be the best thing that happened to him if he or she is subsequently taken on by a firm of catering consultants (Atkinson, 1999, p. 99).

If social assistance and unemployment benefits are almost as high as earnings, this may actually encourage retraining and an increase in skill levels in the economy. Particularly if that in turn attracts investment from firms looking for skilled workers. In this case, high unemployment benefits would benefit, not damage, the economy.

Finally, if primary sector employers require workers not just to do what they are told, but to use their energy and imagination in their work, the security offered by a generous state might encourage such productive behaviour. These are arguments about dynamic efficiency benefits, which assume imperfect and segmented labour markets. Governments used these models in the late 1990s to try to redesign benefit systems to be more 'employment friendly', helping people to cope with the changing labour market while pushing them towards paid work: trying to combine poverty relief and unemployment reduction rather than being forced (as Argument 1 proposes) to choose between them. The Netherlands has been cited as a success story in this regard, having reduced its unemployment rate sharply while maintaining generous benefit levels (Purdy, 2001).

4 Why do governments do what they do?

> Freedom from Want cannot be forced on a democracy or given to a democracy, it must be won by them. (Sir William Beveridge, 1942, quoted in Timmins, 1995)

We have argued that government activity deeply affects the operation of market economies, and discussed what governments could and should do. Now we take the step of treating government decision making 'endogenous' to economic modelling, by asking to what extent economic analysis might be able to *explain* what governments do. This requires us to treat politicians, civil servants and those who work in government service as individuals responding to economic incentives, just as people do in markets, and just as people in communities do in the analysis of collective action; for politicians, the incentives are created in large part by the preferences of the voters who elect them. This approach to understanding government is known (confusingly) as 'public choice' economics, since voters are treated as making choices much as consumers do in a market. To give you a flavour of public choice analysis, we look at just one question: why might a democratic

government redistribute income to the less well off? This section introduces you to the sort of issues that can help improve the functioning, accountability of government officials, and to align their incentives with those of the population they represent.

4.1 ‘Public choice’ economics and redistribution

Measured on the basis of disposable income the poor form a minority of the population in high-income countries. So why, in a democracy where everyone has a vote, should redistribution to the poor occur at all? Why should comfortable citizens vote to give away some of their primary income to the worst off?

We will consider answers to this question in two stages using a simplified model of how redistribution occurs. First, in a majority voting system, whose preferences expressed through voting actually ‘count’? And second, what might influence those preferences?

Let us assume, initially, that in an election voters can be roughly lined up in terms of the amount of public goods and other public services they would like to see provided by government in kind and equally to all: from very few to a generous provision. And let us suppose that the distribution of voter preferences looks as in Figure 9: there are rather few extremists here. Most voters are moderate in their preferences, with the modal preference – the level commanding the greatest support – at the median, that is, halfway along the distribution.

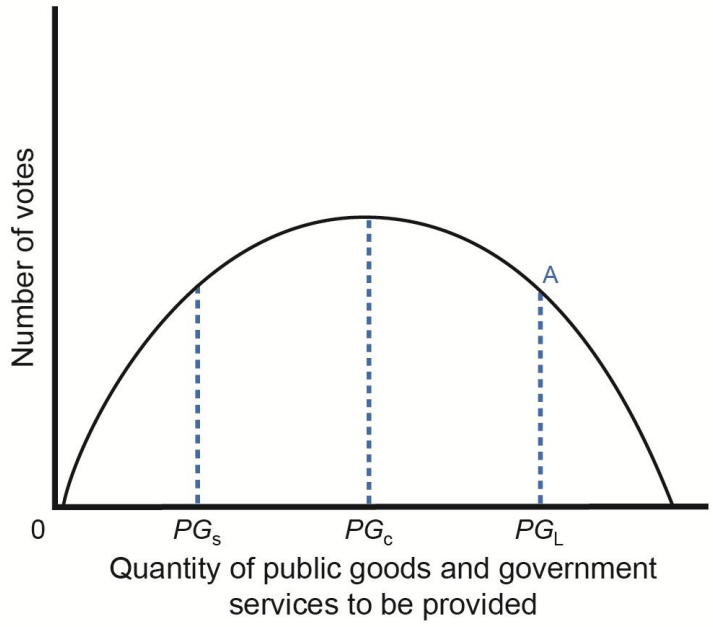

Figure 9 Voters’ preferences and politicians’ proposals.

Two candidates wish to be voted into office. Suppose their initial platforms are PG_S and PG_L. Now both politicians will spot an opportunity. Consider the politician proposing PG_L. Point A shows the number of voters who agree with him (measured on the vertical axis). If that politician moves towards the centre, offering rather fewer goods and services but still more than his or her opponent, he or she will gain more definite votes while not losing those voters who want a lot of provision: for them, he or she will still be the better of the two. The

politician proposing PG_S, if smart, will spot the same idea and also move towards the centre. The politician who can dominate the centre – who can gain the vote of the median voter at PG_C – will take the election.

This conclusion is called the 'median voter theorem': the argument that the median voter swings an election. So, accepting this theorem for a moment, what determines the median voter's preferences? Suppose that those on lower incomes prefer more public goods and government services and those who are better off prefer fewer. This could be explained by self-interest: in a redistributive fiscal system, where the tax rates increase with income, the well-off pay more in total in tax and feel less need for government provision, since for health and education they can supplement government services with private supply. Those on low incomes gain more from government provision relative to their market incomes.

The preferences of the median voter may then depend on the shape of the income distribution. However, self-interested voters may not see the choices quite like that. Consider a rather different story. Suppose that everyone pays taxes (as we do – even the poor pay indirect taxes) and those taxes are spent on, say, the education system. Now suppose that there are three distinct sets of preferences about this. The poor prefer to avoid the tax; their priority is income over education. The middle-income voters prefer more tax and more education provision. The high-income voters prefer to buy their education privately and pay less tax. Here the median voter may not rule; instead, the two extremes may out-vote the middle.

4.2 Political processes and endogenous preferences

There are some general problems with this basic 'public choice' analysis. First, voters are rarely given this kind of simplified choice over policies. Instead, in most democracies, voting seems to be as much a public expression of opinion, of allegiance to a party or even an individual, and of participation in governance processes as a citizen, as it is a process of choosing specific policies. This is amplified in countries where government involvement is not well understood due to the educational levels of the population, or when governments (and opposition) misreport their performance and decisions.

Furthermore, there is likely to be a strong influence of experience on preferences. People may have strong preferences about institutions as well as the precise distribution of benefits. For example, they may have a preference for free access to health care on the basis of need, and may be influenced in this preference by experience of systems that proclaim that objective. There is evidence for this in comparisons of voters' preferences in the USA and western European countries. The former appear to have a stronger tolerance of inequality in health care access than European voters who are used to both the costs and the consequences of European welfare states.

Experience is also influential in another sense. People are influenced by the existence of a welfare state. If they come to rely on it, it affects their work and spending choices. Changing the system therefore has large costs. Consider, for example, a well-off Swedish voter who has no private pension provision. He or she is unlikely to vote for a smaller welfare state. Middle-income voters may rely heavily on the insurance functions of the welfare state. Such voters may, indeed, see redistribution itself as having an insurance aspect. People's position in the income distribution is not fixed. For example, of adults in deciles three and

four of the UK income distribution in 1991, nearly one-quarter had fallen into the two lowest deciles in 1997 (Matheson and Summerfield, 2000). The existence of a redistributive welfare state insures people against destitution when things go wrong in their lives.

Finally, the better off may vote for redistributive policies for reasons other than self-interest. They may believe it to be unacceptable on ethical grounds that a country with high average incomes should tolerate severe poverty. They may fear civil unrest if a part of society is excluded from the benefits most enjoy (another version of redistribution as insurance). And, in these views, they may have been influenced by politicians themselves. People may see the political process as delegating to selected politicians the task of thinking about important issues such as the level of spending on health services and cash benefits, and of taking a public lead in arguing for what they think should be done.

So politicians may – perhaps should – devote some time to trying to change the shape of the distribution of voters' opinions, as well as to changing the income distribution itself. Government seems indeed to be 'endogenous' to a wider governance process, where voters and politicians interact in a public sphere that also includes the media and the existing institutions of social provision.

5 Summary

A.B. Atkinson, a well-known British economist writing about inequality and welfare who also has experience of government advising, argues that:

> Calls by economists for rolling back the welfare state are themselves part of the political process; we have not just endogenous politicians but also endogenous economists, whose behaviour has to be explained. (Atkinson, 1999, p. 187)

What Atkinson is saying here is that economic analysis does influence policy, to some extent. Furthermore, economists analyse how the political process influences policy decisions. Yet economists are much less aware that we too are influenced in our choice of model by the politics of the day – and of the consequences that may have. Atkinson's book, from which the quote is taken, is 'endogenous' in this sense: he is trying to contest the assumption that the economic literature as it stands all supports 'rolling back the welfare state', showing that plausible models can generate alternative conclusions.

Economics is thus a highly political subject. I think that is one of its pleasures. This unit has introduced you to some of the economic analysis of government and more broadly of governance, both in the sense of collective action and in the sense of voter– politician relationships. A particular theme has been the interrelation between equity – in the sense of both greater equality of incomes and more equality of opportunities – and efficiency in both a static and a dynamic sense. The next chapter applies some of the analysis back to health care.

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Unit 4: Insurance and health care financing

1 Introduction

Health insurance is now becoming a major agenda item in many developing countries as governments are finding it harder and harder to bear the costs for providing health services to an increasing population and access to health care has grown increasingly unequal.

Health is different from other goods in that it has an element of unpredictability and uncertainty, and it has an element of limited observability by different parties. There are strong associations between lifestyle, diet, income, education and health status, but no one really knows for sure how long they will live, how healthy they will be in the future, when illness or other health hazards will occur, how much health care they might need, how much change in health will affect future income and even how good the service they receive when they need one is. Health care costs are therefore uncertain not just in terms of timing but also in terms of amount. Costs for health services following illness could be so high that without financial help, treatment might not be affordable, especially to the poor. Health insurance is a mechanism of making sure funds are available when needed to pay for health care. At the individual level, it works as a saving mechanism in that insurance is paid for in a smooth way throughout a period of time, and this insurance income is used when health hazards occur. In the aggregate, it works as a redistributive mechanism in that by pooling insurance premiums from the insured population, some people will spend more than they have paid in, and others less. If this insurance has a social element to it, then it can even happen that insurance premiums can pay for expenses of individuals who are not even insured. This is the case with social insurance schemes, and the community-based health insurance (CBHI) scheme being piloted in Ethiopia. How much distribution depends on the set of ethical values dominating in the societies where alternative types of insurance are implemented.

Health is also an unusual good because of asymmetric information. Health providers know more about the treatments than patients, and patients know more about their symptoms than insurance companies. Asymmetric information creates incentives for parties to try to take advantage of their informational advantage, which creates inefficiencies.

This unit introduces the basic concepts and principles of health insurance, discusses the different types of health insurance, and efficiency and equity issues in the health insurance market. The unit also addresses the linkage between information asymmetry, adverse selection and moral hazard in the insurance market, government budget and allocation of resources.

Learning outcomes

After studying this unit, you will be able to:

Knowledge and understanding

- explain the concepts and principles of health insurance
- discuss different types of health insurance and their characteristics

Practical and professional skills

- apply efficiency and equity principles in health insurance
- analyse the link between information asymmetry, adverse selection and moral hazard in health insurance market
- evaluate the health insurance system in Ethiopia.

2 Health insurance

Insurance providers reduce risk by combining a group of risks so that the accidental losses to which the group is subjected become predictable within narrower limits. They pool fortuitous losses by transfer to an insurer, who agrees to indemnify insured persons for such losses and render services connected with the risk.

Health insurance is a means of pooling risk across different population groups as a means of avoiding the financial burden of unanticipated and catastrophic conditions in health. It is a means by which individuals pay money to insurance companies to avoid the risk or uncertainty associated with ill health. The insurance company collects the money from the individuals, tries to maintain or increase its value through investment, and pays claims when asked by the insured persons.

In rich countries, people gain access to health care mainly through insurance or taxation. The need for health care is very hard to predict: in any year an individual may or may not fall ill; in a lifetime, some people need more care and treatment than others. Insurance, in principle, allows individuals to pay a predetermined amount and receive treatment if they need it. Paying taxes that support a public health care system, such as those in the UK and Sweden, has the same effect: you pay a sum of money and receive treatment determined by clinical need, not by the amount you pay. Neither taxes nor insurance guarantees that you will receive all you need in practice. They do, however, allow people to receive expensive treatment – such as major surgery – that they could not afford if they had to pay for it at the time from their incomes. Insurance can be provided through the market or there can be social insurance schemes which do not rely on the market.

2.1 Probability and private insurance

Insurance works on the basis of probabilities. Private insurance companies spend large sums of money trying to work out the probabilities of various calamities occurring to identifiable groups of people. The probabilities of particular occurrences can become rather stable and predictable for large groups of people. No individual knows whether they will fall ill and be unable to work next year, but it is possible to work out with reasonable precision what percentage of a large group of people, who are similar in age and general health, will become ill over the period.

So insurance works by identifying groups with predictable probabilities of incurring a given problem, and then charging them all a sum that allows for the unlucky ones to receive compensation. Let us take the example of sickness benefit insurance payments, which are made if you fall ill while working. Suppose that a private insurance company knows that there is a 0.5% chance of someone like you being off work in any month, and pays you 800 birrs if you are off work. The premium that the insurance company will charge will be 0.5% × 800 plus a mark-up to cover its administrative costs and profits.

Activity 1

Suppose a group of people that includes you has a 1 in 100 chance of being ill in any year, and that the average cost to the insurance company is 2500 birrs per illness episode, plus 5 birrs per person for administration and to make a profit. What annual premium will the insurance company charge?

Comment

Some of you will be unlucky, others will not. But on average, you will cost the insurance company 0.01 × 2500 + 5 = 30 birrs each year.

Formally, if the probability of requiring a given compensation Z is p, and the administrative costs plus profit are A, the premium is:

$$pZ + A$$

An individual will pay if they can afford it and are sufficiently worried about the possibility. The insurance company will accept the premium if they think that, on average, they will make a profit. That is the principle of private insurance. To make it work, several conditions are essential.

First, enough people have to be insured to make the calculated probabilities reliable. This condition is called the 'law of large numbers'. In small groups of people, the proportion that will be ill at any time will vary greatly from year to year. However, with very large groups, the average sickness rate becomes much more predictable. As a result, risks can be pooled efficiently. In Ethiopia, because insurance is mainly available for salaried workers from large companies, the number of insured people is still relatively low, and therefore premium relatively high.

Second, the probability that any one individual needs compensation has to be independent of the probability of the same problem for others. If your friend becomes ill it must not influence your state of health. Otherwise, the insurance company might have to pay out to a large number of people simultaneously, and so the amounts it will have to pay out will not be stable. Infectious diseases are obviously a problem here.

Third, the probability of the insured disaster must be less than one. If $p = 1$ the problem is certain to happen. If you are already sick or disabled, health insurance to cover the condition would cost at least as much as the treatment. This means the most vulnerable people in society can find it difficult to buy certain forms of insurance.

Fourth, people must not be able to influence the probability of the insured event occurring. Hence pregnancy is hard to insure against, and so is unemployment. You have seen this source of market failure before, it is called 'moral hazard'. The market fails to work efficiently in this case because the insurance company lacks good information on the actions of the insured person, which can influence the sums paid out. The insured knows an individual's probability is higher than the probability that is used to compute insurance premium in the absence of moral hazard, which once the insurance company is aware of people in the pool altering their behaviour and risks of hazards, tends to increase the premium.

Fifth, the insurer also needs good information about the risks attached to each individual. Otherwise, some high-risk people may represent themselves as low risk and so pay insufficient premiums. This in turn pushes up the costs for others. If the result is that truly low-risk individuals find average premiums rising to a point at which insuring themselves is no longer worthwhile, they will drop out, further raising the costs for others. This form of market failure is called ‘adverse selection’. When insurance is voluntary, this is likely to happen.

2.2 Demand for private insurance

The outcomes of many economic decisions are risky and uncertain. Insurance coverage for insured persons takes the assumption of known probability of the event occurring, which leads to a predictable loss or payment. People also decide to buy or not considering the probability of the event occurring, and the premium they are required to pay if they buy the insurance policy. Whether to buy insurance policy or not is also dependent upon individuals characteristics. We have so far assumed that it is the expected probability of a health hazard occurring that matters for individuals, and as long as the premium they pay does not exceed the expected health costs by much, individuals would be willing to pay the premium. However, attitudes to risk vary a lot across people and we were implicitly making the assumption that individuals were risk neutral. More often individuals show signs of being risk-averse. Risk-averse individuals are more likely to take up insurance, even if the premium exceeds their expected value. This is the penalty they are willing to pay for a certain outcome versus the possibility of having to deal with uncertain future health expenses. Risk neutral individuals, when the premium outweighs their expected losses due to administrative costs or due to moral hazard and adverse selection, may prefer the uncertain future health expenses and not buy insurance.

Activity 2

If you are assigned to conduct a needs assessment for how much people are willing to pay for a given health insurance scheme, what type of information should you consider?

Comment

Broadly, demand for private insurance will depend on three factors: how risk-averse people are, how much they would lose if the bad outcome occurred and how great their perceived chances are that the bad outcome will actually occur. There is also differences in preferences for different types of coverage, which is partly down to attitudes to risk, and part to do with other competing uses of each household income. Some will prefer broader and/or deeper coverage. Others will prefer to buy much less. Some may prefer to buy none at all.

The demand for health insurance results from the demand for health, and is affected by premium loadings, wealth or income of individuals, expected loss due to the event occurring, the perception of individuals and information or perception of individuals about the risk, and availability of indemnity mechanisms such as co-insurance and deductibles.

These factors, and their impact on the demand for private insurance are briefly summarised in the following list.

2.2.1 Change in premium loadings

A premium is the amount of money that people are required to pay to a health insurance company to be covered by the insurance policy for a given amount of health services, should the insured events occur. As the premium loading for given services of health increases, people tend to buy less insurance and as premium loading decreases, people tend to buy more insurance.

2.2.2 Change in expected loss

Illnesses usually occur rarely and randomly. Nonetheless when illnesses occur, the consequences to individuals can be catastrophic. If the illness occurred is associated with the high loss in health and income, people tend to buy more insurance.

2.2.3 Change in wealth

Having more wealth is associated with high asset losses if an unexpected event occurs that leads individuals to buy more insurance policy. Thus, usually as individuals' income or wealth increases, there is a tendency to buy more insurance though there are situations in which individuals may not buy insurance as their income or wealth increases or decreases. Individuals who have more wealth may undermine the fiscal burden of the events if they occur while individuals who have less wealth or income may not have the ability to pay the premium. An additional argument also suggesting that insurance increases with wealth is the fact that insurance and health may not be seen as priorities in poorer households who spend most of their income on necessity goods and more immediate needs such as food.

2.2.4 Individuals risk perception

Health is associated with risk as we do not know when to become ill and how much we will pay for health care services if we become ill. Though, this is a general truth, some people may underestimate the true risk of the illness and tend to buy less insurance while other people may overestimate the true risk of the illness, and tend to buy more insurance.

2.2.5 Co-insurance, co-payment and deductibles

Co-insurance and co-payments are payment mechanisms in which the insured person shares the losses when events occur. The percentage paid by the insured person is the co-insurance rate and the amount paid by the insurer is co-payment. As the co-insurance rate decreases, people tend to buy more insurance.

Deductibles are another payment mechanism in which some amount of the cost of health care is paid by the insured person irrespective of co-insurance. In this case, insurance is not effective until the consumer pays the deductibles out-of-pocket. Thus, as deductibles decrease, there is a tendency to buy more insurance. There is, however, a trade-off here. Often deductibles exist because smaller claims are more common and more affordable by each person individually. The presence of deductibles often decreases the premium because insurance becomes more targeted against less likely and more costly events, which on the whole, are a smaller share of total health costs.

3 Health market failures

Arrow (1963) has argued that the market fails to offer individuals health care insurance in many situations where it would clearly be desirable for such insurance to be available. This section analyses the strengths and limitations of private insurance provision via a market where the good in question is a public goods, has externalities, and is not easily observed by all parties to the same extent.

3.1 Information asymmetry in health markets

Private insurance is difficult to implement when the pool of insured people is too small, but it is even more challenging in markets with imperfect information. The markets for many health care services and the insurance market in particular are marked by significant degrees of **asymmetric information** and agency relationships. This section lists the sources of asymmetric information that are common to all health systems. It exists between insurance companies and insured people, between doctors and patients, even between health providers and funders or governmental bodies. Most analysts agree that often potential beneficiaries have better information than the insurer about their health status and expected demand for health care. As a result, premiums for higher-risk patients will be under-priced, encouraging such patients to over insure while the opposite holds for low-risk patients. This phenomenon reduces the efficiency of health insurance markets while redistributing income from low-risk to high-risk patients. Information and agency problems account for many other important characteristics of health care markets. The possible preference for health care delivery by non-profit health facilities has been attributed to lack of information and inability to discern quality.

3.1.1 The agency relationship

An **agency relationship** is formed whenever a principal delegates decision-making authority to another party, the agent. In this relationship however, the principal has limited information about the effort and decisions made by the agent, and all he or she can observe are the outcomes. In the physician–patient relationship, for instance, the patient (the principal) delegates authority to the physician (agent), who in many cases also will be the provider of the recommended services. The motive behind this particular delegation of authority is that the principal recognises that they are relatively uninformed about the most appropriate decisions to be made and that the deficiency is best resolved by having an informed agent. Thus, asymmetric information and agency are closely related phenomenon.

The perfect agent would focus on the patient's preferences, not his or her own. The problem for the principal is to determine and ensure that the agent is acting in the principal's best interest. Unfortunately, a divergence of interests may arise, and it may be difficult to introduce arrangements or contracts that eliminate conflicts of interest. One problem which may arise is what is called **supplier-induced demand** (SID).

The phenomenon of SID occurs when physicians abuse the agency relationship with their patients in order to generate demand for personal gain; this is made possible because physicians are more fully informed than patients. The idea behind SID is that health care providers have and use their superior knowledge to influence demand for health. The conditions for SID are reinforced through the physician's dual role as advisor to the patient and the provider of services. As a physician and profit-seeking agent, the physician has an

interest in having the patient incur as many expenses as possible. As an advisor, however, the physician may fail to provide the right advice to patients, who can in anecdotal circumstances, be treated for illnesses that they did not even have.

3.1.2 Adverse selection in insurance markets

You know more about your health status than your insurance company. As a result, you have an incentive to use or to conceal information to your best advantage. For instance, if you have some health problem – say, a heart disease – you might try to find an insurance plan that is designed for healthier people. If you were successful, you would pay a premium that was less than your expected claims experience. The insurer, conversely, would probably lose money on you. As you might imagine, insurers worry a good deal about this.

Adverse selection in health insurance exists when you know more about your likely use of health services than the insurer does. Insurers deal with the problem by trying to design risk classes that group similar risks together. They then charge premiums that reflect this differential risk. The same information that goes into defining risk classes can be used to identify potential marketing opportunities for insurers. If one insurer can identify an employer group that has lower claims experience, for example, it might be able to quote a premium that will attract the group away from another insurer.

3.1.3 Moral hazard in insurance markets

The first major challenge for insurers was adverse selection; the second is called ‘moral hazard’. The term comes from the casualty insurance market. A house may face a variety of fire hazards: it may be struck by lightning; it may burn because of faulty wiring; or it may be destroyed because the owner set it on fire to collect the insurance. This last hazard is referred to as moral hazard. The terminology has carried over to health insurance in that it is assumed that individuals with a health insurance policy use more health services.

Unlike the casualty market, there is nothing immoral about using more health services when you have coverage. It is simply an application of the law of demand. The law of demand states that at a lower price, people buy more of a good. The issues for insurers are how much people are going to increase their use of various health services when they pay less out-of-pocket and whether there are cost-effective strategies that can minimise the extra utilisation. Alternatively, insurance policies can also be designed to decrease incentives for moral hazard. For instance, the existence of deductibles, by increasing the costs of claims, discourage overutilisation of resources and unnecessary claims. All characteristics of the policy, co-insurance, co-payments, deductibles, pre-admission certification and gate keeping, are effective utilisation management techniques to change incentives and reduce moral hazard.

3.2 Externalities

As seen in the previous unit, externalities can lead to a divergence between private and social costs. The analysis showed that in a perfectly competitive market, negative externalities generated in production, that is, externalities that impose costs on others, imply that equilibrium output in the market is too high, since output decisions take into account only private costs of production, and not full social costs.

Activity 3

Can you think of an example of a production process that generates *positive* externalities for other producers?

Comment

A classic, if homely, example is beekeeping: the bees pollinate nearby apple orchards, creating 'external' benefits for apple producers, that is, a useful input for which the apple producers do not pay.

Vaccinations generate positive externalities and these can be analysed in a market framework. However, these externalities affect *demand* decisions and hence consumption, not the costs of production. If vaccinations are supplied in a market, people's demand for vaccinations depends only on the benefit to themselves, and they do not take account of the benefit to others. Hence total demand for vaccinations will be below the market optimum.

Figure 1 illustrates this point, on the assumption that vaccinations are sold on a perfectly competitive market. In the figure, the line D_P is the private demand curve for vaccinations. The curve *MSB* is the marginal social benefit curve: it traces the total benefits – for both the consumer of the vaccination and others – of the last vaccination purchased. The *MSB* curve lies to the right of the private demand curve because there are external benefits produced by each quantity of vaccinations purchased.

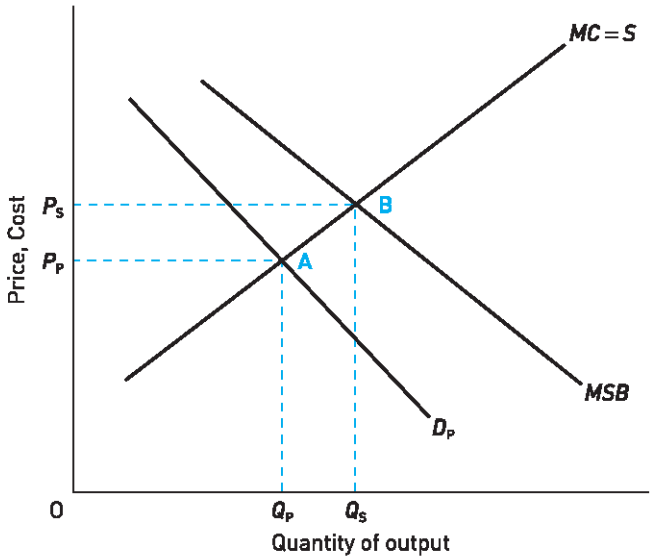


Figure 1 A positive consumption externality in a market for vaccinations.

The market equilibrium that results from private decision-making is at A, while the social optimum is at B. At B, the marginal social benefit of the vaccinations is equal to the marginal cost of producing them. The price would have to be higher to induce suppliers to supply the optimum amount of vaccinations Q_S. To raise the quantity of vaccinations, the government could subsidise the consumption of vaccinations, which would reduce their

price and boost demand. Or the government could campaign to make people aware of the social benefits of vaccination, in the hope that they may increase individual demand as they start to internalise the impact of their vaccination on others.

What does this analysis suggest about the likely boundaries of private health care insurance?

The conditions for efficient private insurance are stringent. Taken together, they suggest that private health care insurers are likely to avoid or charge very big premiums to high-risk individuals or individuals wanting insurance against new and unpredictable health risks.

The dynamics of the private insurance industry further undermine the prospects for allocative efficiency in private health care insurance. Risk pooling means that there is substantial scope for insurance companies to benefit from economies of scale. Larger companies will, by pooling more risks, have more predictable outgoings. In principle, there is no limit to the benefits of pooling, and there are substantial economies of scale to be had in processing the collection of premiums and the payment of claims. It is likely, therefore, that an unregulated market for health care insurance will become highly concentrated, creating monopoly power and hence another source of market failure.

The conditions for efficient private insurance also imply distributional problems. The highest premiums may be demanded of those on low incomes. Some people will be unable to acquire private health care insurance however much they want or need it. If others in society want these people to be insured, some form of redistribution will be necessary.

4 Social insurance

So, private health care insurance is problematic and is unlikely to be sufficient if society – however defined – wishes all its members to be insured to cover the costs of health care. Some people will be excluded by a lack of income, others by the nature of the risks themselves – given the market failures in private insurance – or by their own particular probability of succumbing to these risks.

These problems can be used to explain the spread of social insurance in health care, as in other areas of concern.

Activity 4

Recall Units 1 and 2. What is meant by ‘social insurance’?

Comment

Social insurance is insurance that is compulsory for all who can pay. The term generally refers to a system whereby employers as well as employees pay on a compulsory basis into insurance funds, and these funds provide access to a range of benefits, including health care. Insurance schemes with a social element can pay claims of people who are not insured, often the poor. The state is most often the provider of social insurance. The state offers two major advantages over private insurers: its capacities for investigation and compulsion. By compelling universal coverage, the state can prevent low-risk people from refusing to enter a pooled system and hence reduce the costs of universal coverage.

So, one explanation from economic theory for the rise and persistence of social insurance in health care is that it represents a response to insurance market failures. The boundaries between social and private insurance are contested in theory and are shifting in practice as the insurance industry develops. You should note, however, that social insurance schemes in practice combine risk pooling – true insurance – and redistribution from rich to poor. Risk pooling requires only that people make a common flat-rate payment, based on the average costs of the scheme. Social insurance payments, however, are often income-related, which implies that there is some redistribution between the better off and the poorer in terms of the costs of access to the scheme, as well as redistribution towards those who fall ill.

So the persistence of social insurance may be explained by its capacity to combine efficient insurance with rich-to-poor redistribution. It can be 'sold' as both an efficient safety net and an ethical system, and it has the additional advantage that, as contributors, people have rights to the benefits: there is none of the stigma attached to charity.

Activity 5

The Government of Ethiopia endorsed Proclamation No. 690/2010 on Social Health Insurance. This act introduced Community Based Health Insurance (CBHI) in 2011 as a pilot project, which did not rely solely on central government for premium collection nor resource management. Given what you have learned in Units 1 and 2 about this project, what could be the potential benefits and risks of this health insurance scheme?

Comment

Table 1 Potential benefits and risks of a CBHI.

No.	Potential benefits	Potential risks
1	Protect individuals from poverty by reducing out-of-pocket expenditure for health services	Increasing the emphasis on curative health care may neglect primary and preventive health services as a means of reducing costs of health insurance. The system can become less efficient and default.
2	Increase access to and utilisation of health services	The implementation of insurance could be difficult if the system is not ready to manage the insurance scheme. Issues around monitoring performance and eligibility, governance and budgeting structures and communication between central and local authorities are some of the challenges.
3	Improve quality, efficiency and effectiveness of health services	Limitations of some insurance provider payment methods may outweigh the cost of implementing the health insurance scheme.
4	Address national health goals and objectives by engaging private and local providers, decentralising the system	There may be problems of attracting quality providers and ensuring quality; additional problems may involve bankruptcy, and frustration due to inadequate skills and resources of local insurance agencies, lack of cost and monitoring controls, and failure to pay on time.

5	Creates more stable resources for health by generating additional resources.	The government may shift the health sector budget to other sectors, in effect crowding out and reducing total resources; managing insurance funds may become a problem with fewer resources and corruption more likely to occur, reducing efficiency of available health resources in serving populations.
6	Helps to reach the disadvantaged people by expending resources to priority health services.	Due to the reasons mentioned earlier, it may not benefit the poor if there is a decrease / shortage of resources as a consequence.
7	Creates more equitable distribution of resources for health	Insurance benefits package may be financially unsustainable, and high income people may be dissatisfied.

Source: World Bank (2012).

5 Compare and contrast different health insurance schemes

Tanzania has implemented five insurance schemes to ensure access to health services by the Tanzanian population (Kuwawenaruwa and Borghi, 2012). In Ethiopia, the health insurance market is almost at infancy. What can we learn from the Tanzanian insurance schemes? We can understand that insurance is generally increasing the intensity of outpatient care use, and Community Health Fund (CHF) members are more likely to use public primary care than their non-insured rural counterparts. National Health Insurance Fund (NHIF) members in urban areas use a much wider range of outpatient care than those in rural areas despite equal contributions. It seems that increasing the availability of affordable insurance options for poorer groups and ensuring greater consistency in the benefits offered across schemes would help to improve health system equity. Moreover, the inequity in service availability between urban and rural areas should also be taken into consideration, and efforts should be made to increase provider choice for those living in rural areas.

A country may choose different forms of health insurance schemes to maximise the population coverage. For each form of insurance, what is feasible in terms of benefits, given the premium schemes determine the options for financing health insurance.

There are a number of arguments that are being put forward to stress the benefits of health insurance in improving financing of health care and access to health care services in poor countries. First, health insurance can increase the availability of resources for health care freeing up limited public funds to be directed towards poor people, and offers a more dependable and predictable source of funding compared with the unpredictability of tax finances or foreign aid, that also facilitates private investment in health. Second, the pooling of resources allows for cross-subsidies between those who are healthy and those who are sick, and between rich and poor; and reduces uncertainty for citizens and gives them

financial protection against impoverishment due to illness. Thirdly, health insurance schemes contribute to better-quality health care by separating the purchasing and provision of services; and people are more willing to pay for health insurance than to pay taxes, as their contribution is linked to entitlement.

However, health insurance schemes, such as national health insurance, social health insurance, community health insurance and private health insurance, face serious challenges in poor countries. Difficulties in raising adequate revenue, the unpredictability of funding, inequalities in risk sharing and the level of protection offered, and difficulties in improving the quality of the service are some of the limitations facing poor countries. Table 2 aims at bringing together some of the arguments put forward for the alternative types of insurance a health system can adopt.

Table 2 Major types of health insurance.

Mechanisms	**Advantages**	**Disadvantages**
National health insurance	• Government-managed health insurance • Comprehensive coverage regardless of health status or affiliation	• May not be sufficient if not assisted by other insurance schemes
Social health insurance	• Mandatory membership • High level of risk-sharing due to large and varied risk pool • Premiums proportional to income and not profit-oriented • Generates relatively stable revenues	• Poor people are excluded unless subsidised. It struggles to identify groups to subsidise and to enrol them, including informal sector workers • Poses a threat to equity when subsidised (poorer) groups receive less comprehensive benefits packages • Complex to manage and low-income countries lack the capacity to do so
Community-based health insurance	• Targets the low-income market, not for profit and reaches the informal sector • Risk premiums are based on the risk profile of the community and not of individual members, which means a higher level of risk-sharing • Has ability to improve access to services for poor people, but not the poorest	• The poorest people are excluded unless subsidised • Prone to adverse selection due to voluntary membership • Financially vulnerable unless supported by government funding • Often has limited administrative capacity

Private health insurance	• Increases financial protection and access to quality health services for those able to pay	• Premium based on risk profile • Efficiency is generally related to maximising profits • Big risk of adverse selection • Particularly inequitable unless poor people are subsidised • Coverage usually limited to a small percentage of the population due to premium levels, selection methods, and voluntary nature • High administrative and regulatory costs • Can lead to significant cost increases of health care and can negatively influence services available to poor people

There are also specific concerns regarding insurance schemes implications in terms of the equity and efficiency of health systems as a whole. In particular, it can be argued that private health insurance (PHI) provision is both inequitable and inefficient.

Although PHI can increase financial protection and access to (quality) health services to those able to pay, it is known to be particularly inequitable unless poor people are subsidised. As can be seen in the USA, PHI without strong government intervention can lead to rising costs and inequitable access. PHI schemes can be highly beneficial to the (often) relatively small number of people who enjoy membership of them.

In order to prevent growing inequality in access to health services, and the detrimental effects of asymmetric information and non-internalisation of externalities, regulation of the private insurance market is essential. Without regulation, PHI leads to an escalation of costs, a deterioration of public services, a reduction in the availability of preventive health care services and widening inequalities between poor people and those who are better off. In most low-income countries, there is a lack of capacity for effective regulation. Regulating PHI is complicated, and costs related to regulation can represent up to 30% of revenue from premiums. This is one reason why the costs of administrating PHI have been estimated to be up to ten times higher than the administration costs of social insurance.

6 Summary

Insurance schemes can have an important role to play in helping people by: filling financing gaps in the health sectors of low-income countries; providing coverage to poor people; increasing risk-sharing and the level of protection offered; and improving quality access to health care. Nonetheless, there still are debates on insurance schemes on whether they have been able to contribute substantially to universal coverage in low-income countries. Therefore, insurance schemes have to be considered in relation to the contribution they make towards universal access, horizontal and vertical equity and efficiency within a country. Governments and donors should ensure that before health financing reforms are undertaken, an impact assessment is carried out of these indicators, in full and transparent consultation with civil society, including representatives of the most vulnerable groups. Governments should apply the insurance schemes that suit the context of the country and should increase public resources to increase coverage of services for poor people as the only proven method of achieving universal access. Governments should increase national budgets for health and work towards improved generation of tax income. Donors should support national budgets by providing budget/sector support to governments.

6.1 References

Arrow, K. (1963) 'Uncertainty and the welfare economics of medical care', *The American Economic Review*, vol. 53, no. 5, pp. 941–973.

Kuwawenaruwa, A. and Borghi, J. (2012) 'Health insurance cover is increasing among the Tanzanian population but wealthier groups are more likely to benefit', *Ifakara Health Institute Spotlight*, no. 11, June. Available at: http://ihi.eprints.org/1796/1/Health_insurance_cover_in_Tanzania_Issue_11.pdf (Accessed 6 June 2014).

Unit 5: Assessment week – entry points for health care financing reform in Oromia region, Amhara region and Addis Ababa city

1 Introduction

Since 2000, health care costs have risen in Ethiopia in absolute terms, though in relative terms there has been no change in per capita expenditure on health (see Units 1 and 2). The changing needs brought about by population growth, cost variation between different woredas and new technologies require the reform of resource allocation in health care. This unit will present you with an opportunity to apply what you have learnt in the previous four units to a real world context. You will be presented with, and will have a chance to collect data on the demographics, health indicators and financing issues for a specific area. You will analyse these data, identify potential gaps in resource allocation, and make recommendations going forward in order to close the gaps. You will use your previous knowledge of key concepts and issues in health care financing, such as equity, efficiency, effectiveness, as well as the public-private mix in health care financing. Finally, you will produce a report and dissemination plan.

Learning outcomes

By the end of this unit, you will be able to:

Knowledge and understanding

- describe how problems of health care financing are identified
- list data required for analysis of health care financing problems
- identify the different components of a project report

Professional and practical skills

- locate and search data sources on problems of health care financing
- analyse health care financing issues for a specific region/ city from the perspective of increasing access and equity, and reducing inefficiency
- recommend entry points for health system financing reform in a region/city
- apply new knowledge, skills and attitudes to simulate the decision making on resource allocation in a region/city
- report on resource allocation problems and solutions in health care for a region/city.

2 Identifying problems in health care financing

Problems in health care financing are often raised by the community. For instance, a member of a community may draw attention to the huge financial strain of paying for health care. If their voice is loud enough, their issue may be picked up by the media, such as newspapers, radio or television. The woreda health committee may then bring the story to the attention of the decision makers, woreda council/woreda health department.

You as a student may have observed how people are paying for health care in an area where you have worked. Government reports like the National Health Accounts may highlight problems in health care financing in Ethiopia by region. Survey reports, like the Demographic and Health Survey, report findings on the utilisation of basic health services by region.

Finally, health workers may bring a health financing problem to the forefront. For example, a health extension worker may visit a household where a sick family member is forgoing health care. He or she may ask why they are not seeing a health care provider. The individual may say that they are unable to pay for health care. The health extension worker may include this in his or her annual report.

Source of relevant information for understanding the challenges and opportunities for financing the health sector include: media reports; practitioner experience; and personal testimonies of sick people; and governmental reports. This unit asks you to engage with such data, and identify and assess the issues with health care financing in a particular woreda or region.

3 Collecting data that highlight problems in financing health care

You will need data on demographic characteristics, socio-economic status, health status and health care financing for the project area. Below is a list of the indicators that will help you to characterise the health care financing situation in your woreda.

3.1 Demographic characteristics

Regional data on demographic characteristics include: total regional population; and distribution by age, sex, education, occupation, marital status, family size, ethnicity and economic status. In addition, data on total population by place of residence (urban versus rural) and woreda should be sought. A useful piece of data evidence is the proportion of each woreda population below the poverty line (per capita income ≤ US$1.25 per day).

3.2 Geography

Geographical information on climate, transportation and communication should be collected.

3.3 Health needs assessment

Health status data on morbidity and mortality should be sought. Morbidity data include: the main causes of ill health and disability by age and sex. Mortality data include: general mortality rate by age, sex and cause; neonatal mortality rate; infant mortality rate; maternal mortality rate; and cause specific mortality rate. Information on mortality will include life expectancy. A health needs assessment will need to be done for a particular woreda in a zone.

3.4 Health system

Information on the organisation of health care in the region including the number of health centres, hospitals (both public and private), health posts and private clinics should be sought. Health system data should include reports on service volume (workload) by facility. Moreover, information on the number of providers and support staff in each woreda should be prepared. Utilisation of outpatient/inpatient care and differences by economic status, urbanity and education should be collected. The proportion of the population who forgo medical care at least once by woreda and their reasons for forgoing medical care need to be provided. Furthermore, logs of physician and other health care providers working hours by woreda will be provided. Finally, information on geographic access to health care should be sought.

3.5 Health care financing

Information on health care financing will include: total woreda budget and the proportion of budget allocated to health care; total budget allocated for health (by town administration and NGOs) and a breakdown by type of services (preventive or curative), source of money for health care, payment methods for services, proportion of out-of-pocket, insurance, fee waiver, NGO and other, revenue collection mechanisms, cost of health care in each woreda, and resource allocation.

4 Locating and searching for sources of data

4.1 Locating health care data

Sources of data on health care financing issues include peer-reviewed articles and the references within them, reports and experts in the subject of health care financing.

Peer-reviewed articles can be located on PubMed, EMBASE and CINAHL. GoogleScholar is a useful search tool for peer-reviewed articles. The references in the articles should be searched for valuable information on the allocation of resources in health care.

The other sources of data are reports from multilateral and bilateral agencies. Multilateral agencies, such as the World Bank and International Monetary Fund (IMF), provide information on total health care expenditure, and per capita health care expenditure. Moreover, these sources provide information on life expectancy and a range of other health data. The World Health Organisation's (WHO) national health accounts database provides information on health care expenditure of countries. WHO's health workforce statistics database is a source of information on the numbers of physicians, nurses, midwives and management professionals by country. In addition, reports from bilateral agencies, such as the USAID/Health Sector Financing/Health Governance project and DFID have country specific information on health care financing.

Government reports from different agencies are an indispensable source of data on the mechanisms of health resource allocation. The regional finance office will hold information on the criteria used for allocating resources for health care in the different woredas. They also have information on the amount of government funds made available to each woreda. Budget is allocated to the woreda as a block grant and it is the woreda that decides on the amount of budget that needs to be allocated to health. Regional health bureaus then allocate budget for hospitals. The woreda administration council will hold the budget

breakdown for the different sectors. The woreda health department has information on morbidity data for that woreda and how budgeting is carried out, including the split between preventive and curative services.

Census reports provide information on the total population of each woreda in Ethiopia, breaking population down by age and sex. Morbidity and mortality data is difficult to find at the woreda level, though it is valuable for health needs assessment.

Some more qualitative information may also be obtained from health centres in your woreda. You may want to include evidence collected from focus group discussions.

4.2 Developing a search strategy

You will require different research strategies for the different online sources. The first step in searching articles is developing a concept map. The concept map depends on the answer you are looking for. Develop a domain term for a particular concept and slice the domain term into search terms.

Example: We want to look for articles or reports for the following question.

What are the sources of finance for health care in Oromia region of Ethiopia?

Before developing a concept map understand the question and identify the important concepts.

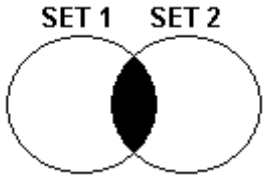
The domain terms (concepts) are: Source, Finance, Health care, Region, Oromia, and Ethiopia. These terms can be further developed into search terms as:

- source – origin, payer, purchaser
- finance – money, funding, resource, monetary assistance
- health care – health service, health delivery, health care organisation
- region – state, administrative entity, regional council
- Oromia – Oromiya, largest region in Ethiopia, Oromo, region 4, most populous region in Ethiopia
- Ethiopia – horn of Africa country, east African country, sub-Saharan African country

The singular or plural forms of search terms and synonymous terms can be used. Moreover, the indexes or thesauruses of a particular database can be used. For instance, PubMed uses the MeSH terms as thesaurus for searching within the database.

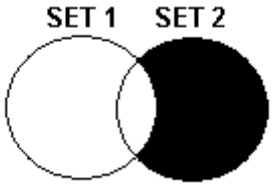
The next challenge is to combine the search terms. Connection words such as ‘AND,’ ‘OR’ and ‘NOT’ can be used to connect search terms. These connection words are called Boolean operators and are depicted in the diagrams below.

‘AND’ =



‘OR’ =

‘NOT’ =



The Boolean operator ‘AND’ tends to give fewer records than ‘NOT’. Whereas, ‘NOT’ brings out fewer records than ‘OR’.

An initial search can bring in more records. For the question in the example, an initial simple search can be done in PubMed or GoogleScholar by combining two search terms. For instance, ‘health care AND finance’. Then, the database displays the records. Check for the relevance of records to the question. Look for additional search terms from the relevant records and modify the search accordingly if need be.

Title scanning is often a good starting point for checking relevance. The next step will be scanning the abstract to determine whether the displayed records are relevant to the question. If the abstract shows that the record is important for the question, you can proceed to download the full text of the article.

Finally, add the studies to the Harvard Generator (http://www.harvardgenerator.com) for appropriate attribution of the source.

Activity 1

Go to the PubMed database. Select the MeSH terms tab on the lower right side of the webpage. Input the search term ‘health care’ on the MeSH search bar. Select the term ‘health care’ from the displayed terms. Add to PubMed search builder box with the Boolean operator ‘AND’. Repeat the same step for the search tem ‘finance’. Then search PubMed. Scan the titles of the displayed results. How many of them are relevant?

Comment

Clearly some of the displayed results are relevant and some of them not. The abstracts of the relevant results can be scanned for further probing.

5 Unit activity

Now that we have introduced you to the range of data available and where and how to access it, we are ready to proceed to the substantive activity for this unit.

5.1 The activity

Activity 2

Read the Health Sector Development Program (HSDP)-III, mid-term review as an example of a project report. Read pages 93–134 on health system problems in Ethiopia which detail how it is financed and governed together with its performance and recommendations for change. Using the HSDP III review report as an example, write a report by analysing the status of health care financing for one of the following: Oromiya region or Amhara region or Addis Ababa city. During the analysis use data detailed in Section 3. Your instructor will be able to support you in this data collection process. Make sure you let him or her know how you are doing. You will put forth recommendations based on the identified problem for a given region.

The report should have sections including a title, contents, question/objective of analysis, problem description (gaps in resource allocation in health care for the region and how this impacts on health status of the population), methodology (setting, approach to analysis, method of data gathering), discussion on what is being done to solve the identified problems, challenges of current efforts, specific recommendations, plan for communicating the findings, references, and summary. Below you will see the criteria which will be used to assess your report, so make sure you consider them.

Comment

Table 1 Suggested rubric for evaluating report on problem analysis and recommendations for reform

Criteria for comment	**Score (from 60%)**
Comprehensive	4
Objective (specific and measurable)	2
Specific	
Measurable	
Introduction	4
Description of problem	
Case for action	
Analysis method	5
Approach – access, equity, efficiency, technology	
Finding vs objective	5
Description	
Match with objectives	
Discussion	15
Causes of the problem	
Efforts so far and challenges	
Logically sequenced	
Literature for and against	
Pathways	
Limitations	
Extent of use of course material in discussions	
Recommendations – specific, doable	10
Communication plan	5
Reference	5
Comprehensive	
Thoughtfully sourced	
Relevant	
Language and grammar	5
Nearly no mistakes	
Casual mistakes	
Incomprehensible	

6 Summary

In this unit you have learned how problems in health care financing are identified and the data needed to analyse the problems and where that data can be found. You practiced searching for data and evidence from online sources. You have also analysed issues in health care financing of Oromiya region, Amhara region or Addis Ababa city. You have identified the efforts made so far to solve the problems, the challenges to be overcome and have forwarded specific and workable recommendations.

Module summary

The financial resources available to health care in Ethiopia are suboptimal for the goal of reaching the Millennium Development Goals and achieving universal health care. This is in spite of rising demand for health care in the country. The demand could be addressed by improving the health care financing functions in Ethiopia, such as implementing social health insurance. Insurance schemes can have an important role in helping people – especially the poor, the elderly and those with ill health – by filling financing gaps.

Health care financing reforms have positively transformed the health system in Ethiopia. Revenue retention has improved the quality of health services and improved citizens' perceptions of health services. The overall functioning and performance of the health system are improving health service equity, the promotion and use of public health services, and have improved the performance and satisfaction of health professionals. However, health problems and ill-health continue to exist despite these laudable initiatives. Implementation of the new fee waiver system and standardisation of the exemption system varies from region to region and inequity in health care delivery still exists.

In light of this, in this module we have covered the functions of health care financing. The politics involved in assigning responsibility for the health of a population was also discussed. You have also applied the knowledge and skills you acquired in the module to analyse issues in health care financing and came up with a recommendation on entry points for reform for a particular region or city in Ethiopia.

Perhaps the fundamental point is that health status is closely linked to economic status: the poor have a lower life expectancy and a greater likelihood of illness than the rich. In view of this link, it is important to remember that health care is often redistributive, in that it enables the poor to secure more health care than they would be able to purchase from their limited incomes. The fact that health care is redistributive reflects the extensive role of the state in most health care systems, even though there is great diversity. This in turn is a response to the existence of market failures in both the delivery and the finance of health care. It is also a reflection of widespread views in society about equity, inequality and rights.

Health care systems need to change, and the medical technologies with which the health professionals respond evolve on a continual basis. The managed competition experiment is just one example of the innovation and change that are features of health care systems the world over. New drugs and equipment often embody the results of impressive scientific research, but their cost may leave those at the bottom end of the economic spectrum excluded from an ever-increasing set of opportunities. Balancing the pursuit of market opportunities against the protection of basic human rights and the promotion of human health is a dilemma that all economies must face.

Glossary for Health care financing

Adverse selection results from asymmetric information in which individuals are able to purchase insurance at rates that are below actuarially determined rates plus loading costs.

Agency relationship is a situation in which one person (agent) makes decisions on behalf of another person (principal).

Aid fungibility is the possibility that aid is used in ways not intended by donors when disbursing the funds

Asymmetric information occurs when the parties on opposite sides of transaction have differing amounts of relevant information.

Equality aims to ensure that everyone gets the same things in order to enjoy full, healthy lives.

Equity exists when people with equal health care needs are provided with equal care.

Externality occurs when one person's action affects the welfare of another in ways that the first need not take into account. An externality therefore arises in a market when the actions of a producer, seller or buyer influence the welfare of others in ways not reflected in market pricing.

Fee waiver is being excused from paying a fee for a service.

Free riding refers to someone who benefits from the provision of a good or service without paying for it.

Health care financing is a process of revenue collection, risk pooling and resource allocation for the purpose of maximising health or the treatment of ill health.

Health sector reform is 'sustained, purposeful and fundamental change' in a given health care system.

Income distribution is how a country's GDP is distributed amongst its population.

Market failure exists when competition does not bring about an efficient (Pareto or allocative efficient) outcome.

Moral hazard is an insurance term that represents the disincentives created by insurance for individuals to take measures that would reduce the amount of care demanded. In the health services literature, it is more commonly used to express the additional quantity of health care demanded, resulting from a decrease in the net price of care attributable to insurance.

Overseas development assistance is support for social services, including health, made in a form of loans and grants.

Public good is a good that is not rival (i.e. 'My consuming it does not reduce the amount available for you'). It is also not excludable (i.e. 'If I am consuming it, I cannot prevent you from consuming it too').

Public–private mix in health care is a mechanism of financing and delivering health care with money and provision from both sources.

Quality occurs when health care input, process and output are fit for purpose.

Resource allocation is a process of distributing the revenues collected for the purpose of health care to competing interests.

Revenue collection is the system of collecting funds from individuals, households and companies by a government for public use

Risk pooling is the process of creating a common pool of money so that the financial risks entailed by certain high-risk individuals are mitigated by money from lower-risk individuals. In effect, it is cross-subsidising from those with low risk to high risk and from rich to poor.

Supplier-induced demand is the change in demand associated with the discretionary influence of providers, especially physicians, over their patients. It is demand that is provided in the self-interests of providers rather than solely for patient interests.

Total health expenditure is health expenditure from both public and private purses as a proportion of GDP. It does not include expenditure on nutrition, water and hygiene.

User fees are charges made before you can access a service such as health.

Acknowledgements

Unit 1: Typology of health systems and financing health care

Figure 1: adapted from Office of Health Policy, May 2014, http://aspe.hhs.gov/health/reports/2014/MarketPlaceEnrollment/Apr2014/ib_2014apr_enrollment.pdf

Figure 2: adapted from Mossialos, E. and Thompson, S. (2002) 'Voluntary health insurance in the European Union: a critical assessment', *International Journal of Health Services*, vol. 32, no. 1, pp. 19–38.

Figure 4: http://businessdevelopmentt-inspiration.blogspot.co.uk/2012/05/it-doesnt-matter-how-many-resources-you.html

Unit 2: Health care financing reform in Ethiopia

Figure 1: adapted from: FMOH; Ethiopia NHA Reports (FMOH 2001,2003, 2006 and 2010b)

Page 29: Issue Brief, A Decade of Health Sector Reform: What Have We Learned produced by the Data for Decision Making Project, funded by USAID under Cooperative Agreement No DPE-5991-A-00-1052-00 with the Harvard School of Public Health.

Table 2: adapted from: USAID (2010) The Status of Health Care Financing Reform in Ethiopia: Synthesis of Data Collected Through Supportive Supervision in Amhara, Oromia and SNNP Regions, Addis Ababa, USAID.

Box 2: extracts from Creese, A. (1997) 'User fees: they don't reduce costs, and they increase inequity', British Medical Journal, vol. 315, p. 202–3.

Appendix A Health care financing reform in Ethiopia: Improving quality and equity – prepared by Hailu Zelelew for the Health Systems 20/20 project a USAID funded project.

Appendix A

Health care financing reform in Ethiopia: Improving quality and equity

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Health Care Financing Reform in Ethiopia: Improving Quality and Equity

Abstract

Ethiopia endorsed a health care financing strategy in 1998 that envisioned a wide range of reform initiatives. The implementation of these reform initiatives was legalized through regional legislations and operationalized in line with prototype implementation frameworks that were modified and aligned within specific regional contexts. In 2004, actual implementation was initiated in Amhara, Oromia, and Southern Nations, Nationalities, and People (SNNP) Regional States following ratification and endorsement of regional proclamations, regulations, and directives by the respective regional councils (Parliaments), regional executive Councils (Cabinets), and Regional Health Bureaus (RHBs). Currently, the reforms have expanded to the remaining regions, with the exception of Afar and Somali, which are still in the process of endorsing legal and operational frameworks. All other regions (Tigray, Benshangul-Gumuz, Gambella, Harari, Addis Ababa, and Dire Dawa) have already begun implementation.

The strategy recognized that health care should be financed through multiple financing mechanisms to ensure long-range sustainability. The reforms introduced include implementing revenue retention and use at health facility level, systematizing a fee-waiver system for the poor, standardizing exemption services, setting and revising user fees, introducing a private wing in public hospitals, outsourcing nonclinical services, and promoting health facility autonomy through the introduction of a governance system.

The purpose of this background paper is to provide a glimpse of these reforms, the major progress and achievements made through their implementation, and the role of USAID's continued technical and financial support in implementation of these reforms and related results.

BACKGROUND

Health Status

Ethiopia is situated in the northeastern segment of the African continent, commonly known as the Horn of Africa, with a land mass of 1.14 million square kilometers. With a total population of more than 73.9 million in 2007, Ethiopia is the third most populous country in Africa, following Nigeria and Egypt.

More than 44 percent of the population is under the age of 15 years, and over half (52 percent) of the population is in the age range of 15 to 65 years. Preventable communicable diseases and nutritional disorders continue to be major health issues. The most recent vital health indicators (2007/08) show a life expectancy of 54 years (53.4 years for male and 55.4 for female), an infant mortality rate of 77/1000, and an under-five mortality rate of 123/1000. More than 90 percent of child deaths are due to pneumonia, diarrhea, malaria, neonatal problems, malnutrition, and HIV/AIDS, and often to a combination of these. The maternal mortality rate, at 673/100,000 (CSA et al. 2006), remains high. The major causes of maternal death are primarily pregnancy related and preventable: obstructed/prolonged labor (13 percent), ruptured uterus (12 percent), and severe pre-eclampsia/eclampsia (11 percent).

Six percent of all maternal deaths were attributable to complications from abortion. Malaria accounts for 9 percent of deaths. Shortages of skilled midwives, a weak referral system at health center levels, inadequate availability of basic emergency obstetric care and comprehensive emergency obstetric care equipment, and under-financing of key services were identified as major supply-side constraints that have hindered progress (FMOH 2010a).

Recent Health System Structural Changes

Ethiopia recently introduced a three-tier health care delivery system.

Level one: The woreda (district) includes a primary hospital (with population coverage of 100,000 people), health centers (1/25,000 population), and their satellite health posts (1/5,000 population) connected to each other by a referral system. Health centers and health posts form a primary health care unit with each health center having five satellite health posts.

Level two: A general hospital with population coverage of 1 million people.

Level three: A specialized hospital that covers a population of 5 million. The rapid expansion of the private-for-profit and nongovernmental organization (NGO) sectors is playing a significant role in expanding health service coverage and utilization of the Ethiopian Health Care System, thus enhancing the public/private/NGO partnerships in the delivery of health care services in the country.

Offices at different levels of the health sector, from the Federal Ministry of Health (FMOH) to RHBs and woreda health offices, share decision-making processes, powers, and duties where FMOH and the RHBs focus more on policy matters and technical support while woreda health offices focus on managing and coordinating the operation of a district health system that includes a primary hospital, health centers, and health posts under the woreda's jurisdiction.

Regions and districts have RHBs and district health offices to manage public health services at their levels. The devolution of power to regional governments has resulted in a shift of public service delivery, including health care, largely under the authority of the regions.

Key Health Financing Issues

The World Health Report of 2010 identified three interrelated problems that limit universal coverage: (1) limited availability of health resources, (2) over-reliance on direct payments at the time people need care, and (3) inefficient and inequitable use of resources (WHO 2010). The limited availability of resources for health in Ethiopia is very clear. The total health spending in Ethiopia increased from about US$522 million in 2004/05 to about US$1.2 billion in 2007/08. However, overall health is under-financed, both in absolute terms and when compared to the sub-Saharan Africa average, as evidenced by per capita health spending of US$4.5 in 1995/96 (FMOH 2001) that reached only 16.10 in 2007/08 (FMOH 2007). On the demand side, cultural norms, distance to functioning health centers, and financial barriers were found to be the major causes for not seeking health services in health facilities (FMOH 2011).

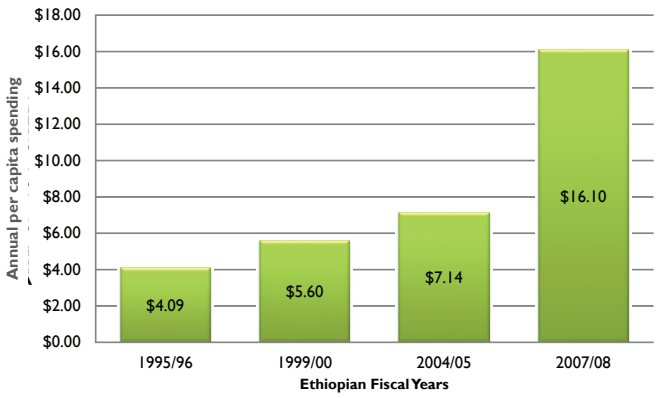
The FMOH of Ethiopia developed a health care financing strategy in 1998 that was endorsed by the Council of Ministers and became a very important policy document for introduction of health financing reforms. The government recognized that health cannot be financed only by government and underscored the importance of promoting cost sharing in provision of health services.

WHY HEALTH FINANCING REFORM IN ETHIOPIA?

In the early 1990s, Ethiopia was recovering from a prolonged civil war, the health infrastructure had seriously deteriorated, and the health service system was dysfunctional. Physical access to health service providers was beyond the reach of the majority of the Ethiopian population, and even more difficult for the poorest segments of the population. The overall country budget was limited, resulting in inadequate financing of health care. In addition, health service delivery was inefficient and inequitable, and quality of health care was generally poor. For instance, in the 1995/96 Ethiopian Fiscal Year (EFY), the annual per capita spending on health in Ethiopia was only US$4.09 – too small an amount to buy good basic health services (FMOH 2001).

The round-four National Health Account (NHA) reports revealed that per capita spending on health is steadily growing (see Figure 1). As stated, in EFY 1995/96, per capita spending on health was only US$4.09, but increased steadily to US$5.6, US$7.14, and US$16.1 in 1999/2000, 2004/05, and 2007/08, respectively. However, even at the relatively high level of current spending, spending on health is still far from adequate to buy good health care.

FIGURE 1: TRENDS IN ANNUAL PER CAPITA SPENDING IN HEALTH IN ETHIOPIA (IN US DOLLARS)



Source: FMOH: Ethiopia NHA Reports (FMOH 2001, 2003, 2006, and 2010b)

In those areas where limited human resources were available, diagnostic equipment was not functioning and essential drugs were not available, compromising quality of health care. A willingness-and-ability-to-pay study conducted in 2001 revealed that respondents found the services provided by public clinics and health centers and hospitals unsatisfactory and below average (30 percent and 47 percent, respectively).

HIGHLIGHTS OF HEALTH CARE FINANCING REFORM COMPONENTS

In 1998, the Ethiopian government developed and endorsed a health financing strategy (see strategy goals in Box 1) that directs resources for the health sector to be mobilized from different sources and permits government to provide health services through its health facilities by means of a cost-sharing arrangement with users. In order to operationalize the strategy, FMOH drafted a prototype legal framework and operational manuals that were adopted by regional governments.

Box 1: Health Care Financing Reform Goals

- Identify and obtain resources that can be dedicated to preventive, promotive, curative, and rehabilitative health services
- Increase absolute resources to the health sector
- Increase efficiency in the use of available resources
- Promote sustainability of health care financing and improve the quality and coverage of health services

In line with the health care financing strategy and based on the approved legal frameworks, a wide range of health care financing reforms have been implemented. Initially implemented in the three largest regions (Amhara, Oromia, and SNNP) in 2005–2006, these reforms are now being scaled up all over the country. In the last three years, the health care financing reforms have been expanded to Tigray, Benshangul-Gumuz, and Harari Regional States, as well as Addis Ababa and Dire Dawa city administrations. The necessary legal and operational frameworks are in place in Somali and Afar regions, and these regions are expected to embark on full-fledged implementation of the reforms soon.

HCF Reform Components

Revenue retention and utilization: Ethiopia has a tradition of paying for health services, that dates back to the introduction of the modern health service delivery system. Ethiopia follows a consolidated revenue collection and budgeting system in which all public institutions that are collecting revenue are supposed to channel their revenue to the central treasury and receive their operational funding in the form of a government budget. Similarly, in the health sector, health facilities were channeling all revenue that they had been generating internally to the treasury. This caused a lack of sense of ownership by health facility staff and health facilities, and the amount of money health facilities had been collecting and channeling to the treasury was rather insignificant. On the other hand, health facilities faced a serious shortage of resources to cover their operational costs, and, in most cases, their non-salary operational budget was being depleted by the end of the first quarter causing inefficient use of scarce resources and poor quality of health care. In response to this problem, the health care financing strategy, followed by the respective regional and federal laws, allowed health facilities to retain and use their revenue for health service quality improvements. Hospitals and health centers in Amhara, Oromia, and SNNP Regional States started to retain revenue in 2005 and 2006.

Systematizing fee waiver system: Ethiopia institutionalized mechanisms for providing services to the poor free of charge through a fee-waiver system, as well as through free provision of selected public health services (through exemption) such as health education and treatment of tuberculosis patients, and through services targeting selected groups (e.g., immunization of children under the age of five). However, a strong need existed to systematize and standardize these services. For instance, local authorities had been issuing (and is still issuing in some regions) fee waiver certificates to the poor as verified through local social justice systems at the time of sickness. This resulted in cumbersome procedures that caused delays in the poor's ability to access care. This was not the case for individuals in higher income categories, and the system therefore created health care inequities.

Standardizing exemption services: In the Ethiopian health system, some public health services have been provided to all citizens free of charge regardless of level of income. This has occurred because of the nature of these activities and because of the need to promote use of certain health care services. Although exemption services were more standardized across regions, some services needed standardization by government. Services that were provided free of charge in some public health facilities were not free in others. In addition, there was no clear distinction between the financing and service provision. Health facilities were providing free services without budgetary/funding support for these activities.

Outsourcing of nonclinical services in public hospitals: Hospital management was spending considerable time and resources on routine administration and management of human and material resources that are meant for provision of supportive services for these health facilities. When managed by hospitals, these services tend to be inefficient and expensive. This includes services such as catering, laundry, cleaning, gardening, security, and maintenance. In view of this, the health care financing strategy considered outsourcing nonclinical services to improve efficiency, reduce spending, and reduce the burden on hospital management.

User fee setting and revision: In the Ethiopian public health system, health facilities have been collecting revenue in the form of user fees for more than half a century. However, these fees have never been systematically revised and no longer reflect the cost of providing services, nor have the fees been adjusted based on the user's ability to pay for them. The health care financing strategy clearly stipulated that user fees needed to be revised to reflect the costs of delivering health care services, but also underscored that individuals should be charged according to their ability to pay. Cost sharing between the government and users was one of the principles of the health care financing strategy.

Initiation of health insurance: As previously mentioned, out-of-pocket spending accounts for a significant proportion of health sector spending. In 2007/08, out-of-pocket spending accounted for 37

percent of the total spending in health (FMOH 2010b). Direct payment at the time of sickness is considered "unsuited," because it could inhibit access, especially for the poor, and because of "the risk of impoverishment or destitution," according to the World Health Organization (WHO) (2010). WHO further stated that "… when the reliance on direct payments falls to less than 15–20 percent of the total health expenditures then the incidence of financial catastrophe routinely falls to negligible levels" (WHO 2010). Direct payments are inequitable as they are regressive, allowing the rich to pay the same amount as the poor for services. The WHO report also revealed that if households are spending more than 40 percent of their disposable income, they could become impoverished. Given the poverty level of nearly one-half of the population in Ethiopia, it is likely that households who decide to use health services could easily slip into poverty. Health spending also accounts for a significant proportion of household disposable income, and this level of spending could be prohibitive for accessing health care services. Thus, the Ethiopian government is in the process of initiating health insurance schemes, social health insurance for the formal sector, and community-based health insurance for citizens in the informal and agriculture sectors.

Establishment of a private wing in public hospitals: In most regions and at the federal level, public hospitals are allowed to open and operationalize a private wing with the primary objective of improving health workers' retention, providing alternatives and choices to private health service users, and generating additional income for health facilities.

Health facility autonomy through establishment of governing bodies: Before the introduction of health financing reform, Ethiopian health facilities experienced cumbersome and ill-timed communications regarding major executive decisions from RHBs and woreda health offices. These decision makers were also physically detached from the health facilities and were not responsive to day-to-day client health service needs. The need for health facility autonomy through establishment of a health facility governing body was critical, as was involving appropriate representatives from the local administration, the health facility, and the local community.

HEALTH FINANCING REFORM ACHIEVEMENTS

Based on the health financing strategy, prototype legal frameworks and operational manuals were developed at the federal level with continuous technical assistance from subsequent USAID bilateral projects, Essential Services for Health in Ethiopia (ESHE-I and ESHE-II), 2001–08, and the current Health Sector Financing Reform (HSFR) project. Between 2001 and 2003, Ethiopia conducted activities to prepare for launching the various reforms (see Boxes 2 and 3 below). Activities contributing to this included the following:

- Experience-sharing visits to learn from experiences
- Training and capacity-building events
- Establishment of prototype legal and operational documents
- Workshops on policy advocacy and consultation.

In 2004 and 2005, the regional governments of Amhara, Oromia, and SNNP Regional States adopted the legal and operational frameworks with technical support from the ESHE-II project. The prototype legal frameworks and operational guides such as Health Care Financing Implementation Manual, Outsourcing of Non-Clinical Services and Establishment of a Private Wing, Financial Management Manual, Revenue Retention and Utilization Guide, and other operational guides were adopted by the respective regional governments and RHBs. Implementation of these financing reforms first started in Amhara, Oromia, and SNNP Regional States by endorsing legal frameworks and adopting the operational guides to their regional contexts in 2004–2006. The legal frameworks and operational manuals were further adopted by the RHBs of Tigray, Benshangul-Gumuz, Gambella, Harari, Addis Ababa, and Dire Dawa. The Somali and Afar regions are also in the process of finalizing ratification of the legal frameworks, and they are expected to adopt the operational manuals very soon. Government authorities at all levels have reported that these operational frameworks and guidelines are very useful for properly implementing the various reform components. Training of trainers and actual roll-out trainings were organized for FMOH, RHB, Zonal Health Departments (ZHDs), Woreda Health Offices (WorHO) and health facility staff in all regions

Box 2: Highlights of Major Activities Implemented

- Momentum for the reform was influenced by advocacy workshops in all regions. More than 1,100 people from RHBs, regional finance bureaus, zonal health departments, woreda health offices, hospitals, and health centers participated.
- Reform process was influenced by studies conducted in health care finance-related areas.
- Study tours were conducted on cost recovery (Zambia), public-private collaboration (South Africa), and health insurance and government-NGO collaboration (Bangladesh and Thailand).
- Plan of Action for implementation of the reform agenda, detailing required policy intervention was prepared, presented, and discussed (annual review meeting 2001 in Nazareth).
- Designed Special Pharmacy (SP) Project and 150 SPs (120 in health centers, 30 in hospitals) established with detailed operational and management guidelines in June 2001. Later the special pharmacies were opened in more than 450 health facilities.
- Developed prototype draft proclamations and regulations for implementing health care finance reforms; shared with decision makers.
- Health Service Delivery, Administration, and Management proclamation were ratified by the regional governments of SNNP, Oromia, Amhara, Tigray, Benshangulk-Gumuz, Gambella, Afar, Somali, and Harari regions, as well as Addis Ababa and Dire Dawa City Administrations, following a series of consultations at technical and policymaking levels.
- The prototype health care finance implementation manual was developed, and adopted by the regions. The manual provides detailed guidance on the steps to follow, formats to use, and a timeline for performing the tasks to implement HCF reforms.
- Health care finance baseline surveys were conducted in the three largest regions (Oromia, SNNP, and Amhara) in 2003 and 2004 by ESHE-II project and in most other regions by HSFR project in 2008–2009.
- HCF reform training of trainers (TOT) and roll-out training provided in all regions.
- Four NHA surveys were conducted based on data of 1995/96, 1999/2000, 2004/05, and 2007/08 spending.
- Study tours on health insurance were conducted in Ghana, Mexico, Rwanda, and Senegal.
- Final strategic framework document and proclamation on health insurance were developed.
- Monitoring and evaluation framework was developed for health care finance.
- SP impact assessment conducted; report prepared.
- At the federal level, final draft proclamation incorporated in the health service proclamation and directive on HCF reform prepared.

(hospitals and health centers) were introduced to the financing reforms.

Health facility-based revenue retention and utilization: Following ratification of the required legal frameworks and adoption of operational guides, health facilities (hospitals and health centers) in Amhara, Oromia, and SNNP Regional States were able to retain and use their internally generated revenue as additive to their regular government budget. In the last two to three years, all the remaining regions approved the legal and operational frameworks and introduced retention with the exception of Somali and Afar regions. These regions are still in the process of approving legal frameworks and adoption of operational guides (see Table 1). In the regions that are already implementing the reform, only the new health centers have not yet started retention as they need to complete necessary planning, which includes recruiting finance management staff. The health facility-level retained revenue is being used for quality improvement, as defined in the respective legal and operational frameworks of the regions.

In 2009/10, data collected from Amhara, Oromia, and SNNP Regional States through supportive supervision

Box 3: List of Study and Working Paper Reports

- Assessing willingness and ability to pay for health care in Ethiopia
- Assessing willingness to pay for medical care in SNNP Regional State: research results and analysis
- Ethiopian health care delineation
- Health insurance and prepayment: principles, concepts, and features in developing countries, prospects for Ethiopia
- Improving the quality of services and adjusting user fees at Ethiopian government health facilities: estimating the potential impacts of implementing various options
- National baseline on drug supply and use
- Private expenditure trends in Ethiopia and implications for health systems financing
- Private health expenditure review
- NGO involvement in the health sector: facts, challenges, and suggestions for collaborative environment
- SPs in Ethiopia: opportunities, challenges, and the way forward
- The policy of fee retention and its implementation in SNNPR: the experience of government hospitals
- Ethiopia: contracting government services in the heath sector
- Health services delivery and financing options for the pastoral areas
- Ensuring financial sustainability under the Health Sector Development Program
- Three health care finance baseline surveys conducted, in 2003 in SNNP and in 2004 in Oromia and Amhara regions
- Four NHA surveys conducted based on data of 1995/96, 1999/2000, 2004/05, and 2007/08.
- SP impact assessment
- Health care finance implementation progress assessment conducted in selected woredas in SNNP, Amhara, and Oromia regions

TABLE 1: HEALTH FACILITIES IMPLEMENTING HEALTH FINANCING REFORMS BY REGION

N/S	Administrative region/city	Number of health facilities		Number of facilities implementing the reform		Percentage of facilities implementing the reform	
		Hospitals	HCs	Hospitals	HCs	Hospitals	HCs
1	SNNP	16	578	16	546	100	94
2	Amhara	16	745	16	358	100	48
3	Oromia	35	1053	35	1053	100	100
4	Tigray	12	211	12	118	100	56
5	B/ Gumuz	2	29	2	21	100	72
6	Harari	2	8	2	8	100	100
7	Dire Dawa	1	15	1	15	100	100
8	Gambella	1	18	1	1	100	6
9	Addis Ababa	5	31	5	31	100	100
10	Afar	4	40	0	0	0	0
11	Somali	8	62	0	0	0	0
	Total	102	2,790	90	2,151	88	77

Source: USAID (2010)

showed that out of 299 health centers, nearly 84.6 percent (253) have had an appropriated budget for EFY 2009/10. The average amount of appropriated budget for the health centers from the retained revenue in EFY 2009/10 was 208,930.00 Ethiopian Birr (ETB). Health centers utilized nearly 73 percent of their appropriated budget from their retained revenue per quarter. Only 17 hospitals (81 percent) provided data on the total amount in their appropriated budget for the same fiscal year. The average annual appropriated budget per hospital was 1,647,821.08 ETB. Although the amount varies from health facility to health facility, generally the retained amount is large enough to contribute to improving the quality of health services in health facilities.

Major achievements of revenue retention and use were the following:

- **Availability of essential medicines increased:** The baseline surveys conducted in 2003 and 2004 revealed that in most health facilities, the drug budget was enough to cover only one-quarter of the year, and health facilities were experiencing stock-out of essential drugs for most of the year. Since then stock-outs of essential drugs have been substantially reduced, and when they do occur, it is mainly because of shortages at the wholesaler level. In 2009/10, supportive supervision data revealed that 42 percent of total expenditure from retained revenue was used for procurement of drugs and medical supplies and 8 percent was used to transport drugs and medical supplies, and fuel and lubricant for facilities with vehicles.
- **Diagnostic capacity of health facilities improved:** Many health facilities procured essential diagnostic and health service delivery equipment. The 2009/10, supervision data showed that more than 6 percent of retained revenue was used for procurement of essential equipment.
- **Continual quality of care maintained:** Health facilities that have had non-functioning diagnostic equipment and vehicles because of budget shortages managed to maintain and operationalize their equipment and vehicles using their retained revenue.
- **Water supply and electricity to health facilities improved:** Regular and continuous supply of water and electricity is critical for provision of health facilities. Many health centers that did not have a water supply or had an unpredictable or dysfunctional water system spent part of their retained revenue to

Diagnostic equipment procured using health facility retained revenue.

New water tank and genarator installed at Wolaitta Sodo Health Center.

establish or maintain the supply system. Some centers and hospitals bought generators to ensure availability of electricity.

- **Operational costs including paying utility bills covered.** Before introduction of revenue retention and utilization, health centers and hospitals reported that they did not have an adequate budget to cover operational expenses, including to obtain fuel for their vehicles, pay their bills, and buy essential medical and nonmedical supplies. About 6 percent of retained revenue was used for improving the facility's health management information system. Other expenditure items such as office supplies, printing services, per diem, and loading and unloading account for 3 percent each, and other items account for 1 percent to 2 percent each.
- **Health infrastructure improved:** Some health facilities renovated their buildings and constructed additional blocks. In 2009/10, the three regions used about 7 percent of retained revenue for renovation and maintenance of health facility buildings.

Systematizing fee waiver and exemption systems: In the Amhara region, where the new fee waiver system is fully implemented, an increasing number of poor households experienced better access to health services. A total of 1,319,114 indigents were selected through community participation and benefited from free health care services. The average number of fee waiver beneficiaries was 7,946 and the government budget allocation for waiver reimbursement per district was 20,791 ETB. A great proportion of the health facilities (53.3 percent) were reimbursed on the basis of fee for service and 43.8 percent were reimbursed on capitation. In other regions, the full implementation of the new fee waiver system is not yet complete. In districts where the new fee waiver system is functioning, a recognizable number of those at the poverty level were able to access free health care.

Standardization of exempted health care services: In line with their regional legal frameworks, health facilities are implementing exempted services that include immunization, antenatal care, postnatal care, delivery at primary health care unit, treatment of tuberculosis, and other public health services. Health facilities are posting lists of exempted services and this is helping to educate users about these services, including which ones are free. The 2009/10 the USAID Bilateral Health Sector Financing Reform (HSFR) project supportive supervision synthesis data showed that, overall, 59 percent (179) of health centers and 38.1 percent (8) of hospitals visited in the reporting year posted the list of exempted health services on their notice boards. Of these, 52.5 percent (94) of health centers were in Amhara, 32.4 percent (58) in Oromia, and 15.1 percent (27) in the SNNP, and all hospitals were from the Amhara region. The major problems encountered while providing exempted health services included shortage of drugs and medical supplies, absence of clear guidance on whether to fully or partially charge for services, additional costs incurred for the provision of exempted health services, and inadequate support both from the government and NGOs for the provision of these services. As a result, some facilities charge for delivery-related services and supplies such as laboratory services, gloves, glucose, and some drugs.

New buildings constructed to replace old ones

Establishment of a private wing in public hospitals: Some of the federal and regional hospitals established private wings to generate additional income for health professionals and health facilities. The private wings offer more choices to users while also addressing improvements in health worker retention and income generation for the facilities.

Health facility autonomy through establishment of governing bodies: Health centers and hospitals in health care finance reform starter regions established governing bodies, and regions where reforms are being expanded are following the same steps. Governance is one of the six building blocks of countries' health systems (WHO 2010). HSFR project's supportive supervision synthesis report revealed that out of 320 health facilities visited in Amhara, Oromia, and SNNP regions, 96.3 percent (288) of health centers and all 21 hospitals established a health facility governing body/board at the time of supervision visits in 2009/10. Only 3.5 percent (10) of health centers in the SNNP reported that they had not yet established a governing body. Of those that established a governing body/board, nearly 83 percent (269 health facilities) indicated the frequency of governing body/board meetings as well as procedures followed such as recording minutes. Facilities listed major health care finance-related decisions made by the governing body/board. These included approval of the health facility workplan and budget utilization of retained revenue, use of retained revenue for procurement of drugs and medical supplies, evaluation of the overall performance of the health facility, and oversight of the implementation of the new fee-waiver system. This coincides perfectly with their duties and responsibilities in the legal framework.

Some operational challenges were observed in the governance of health facilities. Most facilities noted a high turnover of governing body/board members as a result of their busy work schedules and absence of incentive mechanisms as their major challenges or constraints. Measures taken to overcome these challenges included continuous discussion and communication with the woreda administration and woreda health office to address replacement or substitution of nonactive members, scheduling meetings at more convenient times for board members, and submitting recommendations to the respective woreda administrations for approval of financial incentives to be paid to governing body/board members.

Outsourcing of nonclinical services in public hospitals: The purpose of outsourcing is to improve efficiency, reduce costs, and enable health facilities to focus on their core clinical services. The HSFR project 2009/10 supervision report showed that among all hospitals covered during supportive supervision, three hospitals in Amhara region – Enat, Debre Birhan, and Felege Hiwot – outsourced nonclinical services such as supply of food items (bread, *injera*, and *wat* [stew]).

User fee setting and revision: The health care financing policy of the government promotes cost sharing between the government and users as one of the key principles of the health care financing strategy. The regional laws vary in terms of mandating the user fee revision and setting. For instance, in Amhara and Oromia, this mandate is given to the regional government, while SNNP health facilities are given the responsibility of setting and revising user fees taking into consideration the community's willingness and ability to pay as well as cost of services. However, a recent user fee revision study conducted by the HSFR project showed that there are discrepancies in adherence of regional legislation. For instance, in Amhara region, although the regional law gave the mandate of user fee revision to the regional council, of the 12 health centers and six hospitals covered in the study, nine health centers and four hospitals revised user fees on their own.

Initiation of health insurance: The Ethiopian government is in the process of initiating health insurance schemes, social health insurance (SHI) for the formal sector, and community-based health insurance (CBHI) for citizens in the informal and agriculture sectors. The necessary legal frameworks are already in place for the piloting of CBHI schemes as well as for initiation of the SHI program. The SHI agency has already been established and is being staffed with required professionals. SHI is expected to be operational for civil servants beginning in July 2012. It will gradually expand to cover all formal sector employees. Since 2011, CBHI schemes have been piloted in 13 districts in Amhara, Oromia, SNNP Regional

States, and Tigray Regional States. The HSFR project monitoring reports showed that health service utilization by CBHI pilot scheme members has substantially increased in the pilot districts. Patient load in the public facilities that are providing services for CBHI members has also increased.

CONCLUSION AND LESSONS LEARNED

Health care financing reforms, together with a wide range of reforms, has positively transformed the health sector. Revenue retention and use improved quality that in turn improved citizens' perceptions of health services, improved the performance and satisfaction of health professionals, and enhanced overall functioning and performance of the health system. A functioning governance system is critical to ensure health facility autonomy and accountability, timely and responsive decision making through representation, and active participation of health sector actors, including the community. Although much remains to be done and progress varies from region to region, implementation of the new fee waiver system and standardization of the exemption system are enhancing health service equity and promotion and use of public health services.

Lessons Learned

- **Government ownership and commitment:** The Ethiopian health care finance reform is mostly government owned and led at various levels. The FMOH and RHBs, as well as the Ministry of Finance, Bureaus of Finance, and administrators at various levels have been supporters of the reforms. Legal and operational frameworks were developed and endorsed at each level by legislators and government authorities.
- **Relatively long-term technical assistance is critical:** The initiation and implementation of HCF reform was made possible thanks to the continued technical and financial support from USAID. The support has continued for more than 10 years and it is bearing fruits. The bilateral projects supported development of legal frameworks and operational guidelines, supported generation and use of evidence, and provided capacity-building supports including training, supervision, and on-the-spot technical support. The US Government reaffirmed its commitment to continue supporting the various health care financing reform initiatives as clearly stipulated in its Ethiopia Global Health Initiative Strategy.
- **Timing of initiation and implementation of the reform:** During initiation of the reform, Ethiopia was emerging from a long, protracted civil war that had substantially eroded the health services in the country. The government recognized that financing of health care was one of the major bottlenecks and needed immediate attention.
- **Partnering with major stakeholders:** All health stakeholders shared in the health care finance reform in Ethiopia. This sharing in return resulted in strong support from major development partners in Ethiopia including the World Bank, the United Nation specialized agencies, and other bilateral development partners.
- **Timely generation and dissemination of relevant health financing evidence is critical:** The health care financing reform was supported through timely generation and use of evidence. The studies conducted at the beginning of the reform, including the NHA estimations, generated valuable evidence that was critical for policy dialogue and advocacy with policymakers at all levels.
- **Capacity building and experience sharing:** The initiation of health care finance reform in Ethiopia was preceded by experience-sharing visits to selected Asian and African countries. Health financing policymakers and technicians received training in health financing both in-country and abroad. In the last five years, health care finance reform manuals were developed and became operational. They were also used for training of FMOH, RHB, WorHO, and health facility staff. Moreover, administrators and finance officials at different levels have been trained and are now leading successful implementation of the health care finance reforms. Health facility governance members received training focused on their roles and working relations with health facility management.

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